

# THE MAKING OF THE DARK CRYSTAL



CREATING A UNIQUE FILM

TEXT BY CHRISTOPHER FINCH

Henson Organization Publishing  
in association with Mitchell Beazley

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## CREATING A UNIQUE FILM



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*An Owl Book*

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New York

## PROLOGUE



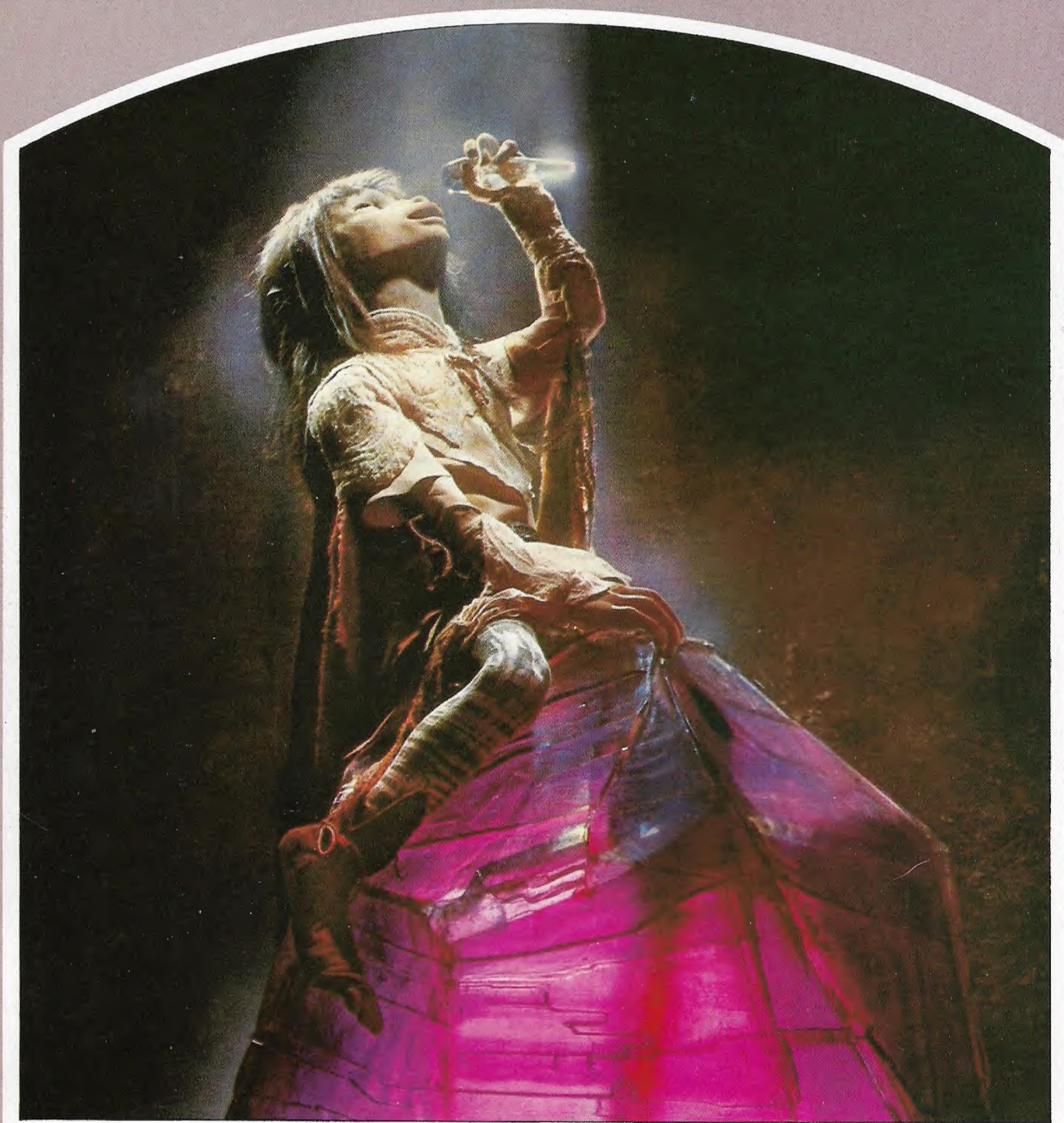


"I remember," says  
*Dark Crystal* illustrator Brian Froud,

"that in my earliest discussions with Jim Henson,  
we talked of a pantheistic world in which mountains  
sang to one another and forests were alive." No singing  
mountains are heard in the final version of *The Dark Crystal*, but  
there is no reason to suppose that such changes don't exist just beyond  
the horizon and the marvels that are shown are scarcely less remarkable.

The opening shots suggest what lies ahead. In the words of the screenplay,  
an incredible sky boils with angry clouds and ripples with electrical discharges  
and unearthly lights. A storm that is almost a living thing. Looking down on an un-  
familiar landscape - mountains, deserts, rivers, forests, craters, and ravines - which  
is itself alive with electrical energy, the eye is carried in one great surge to a sinister  
castle, a totemic pile of jagged spires and buttresses that stands in isolation on a bleak  
escarpment. Inside are the inhabitants of this strange world: nine Skeksis gathered  
ceremoniously around the Dark Crystal. On this planet evolution has taken its own  
wayward course. Creatures have adapted to a set of demands different from any en-  
countered on Earth; that much is clear from the outset. No one knows what circumstances  
and ambitions have molded the Skeksis' features into such cunning, vicious masks, but it is  
clear that they are beings unlike any ever seen before. And not just drawings in a  
comic book or even two dimensional animated figures, they are creatures living in the  
round, their eyes glinting with wicked intelligence. They seem to breathe the air of  
their world as naturally as people breathe the atmosphere of planet Earth. To think  
of them as puppets is, on the face of it, absurd; yet that is precisely what they are -  
puppets that have been conceived and constructed with an attention to detail  
that is unprecedented, puppets equipped with intricate, space-age mech-  
anisms that can trigger the subtlest change of expression. Puppets that  
have extended the frontiers of their art.

# JEN



Raised by the Mystics in their valley, Jen believed he was the last survivor of the Gelflings, a race of fawnlike elfin creatures. But when his dying master sent him on a quest, he discovered he was not alone. *The Dark Crystal* is the story of the terrors and final triumph of Jen's quest.

# KIRA



Like Jen, Kira survived the slaughter of the Gelflings. Rescued by the Pod People, she learned to live in harmony with the woodland creatures who inhabited the swamps and forests surrounding the Pod Village. When fate brought Kira and Jen together, she joined him on his quest. They gave each other strength, encouragement, and the will to succeed.

# AUGHRA



Old enough to know the world that existed before the race of Gelflings came to be, Aughra remembered life before Mystics and Skeksis evolved their separate codes.

She studied the movements of planets in the heavens and lost an eye  
a thousand years earlier observing the last Great Conjunction of the Three Suns.  
Jen was sent by his master to Aughra to fulfill the prophecy and find the shard that would  
make the Crystal whole again.

# URSKEKS



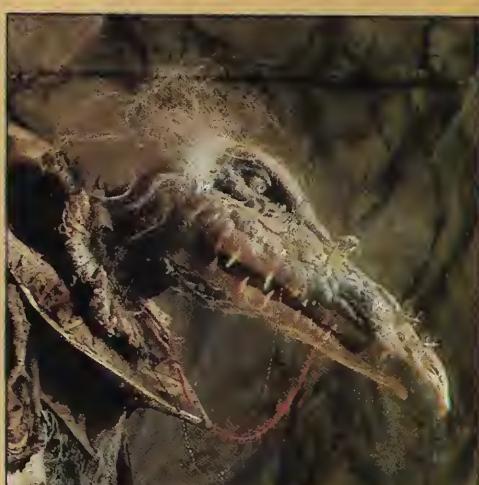
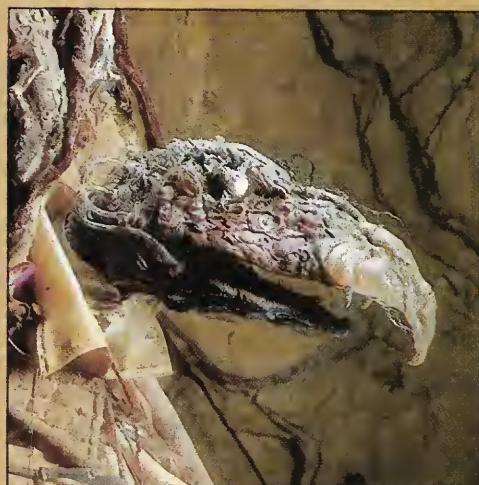
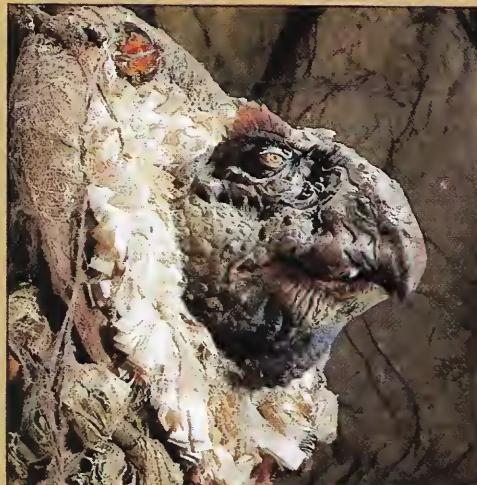
Born of the Crystal before it became dark, the urSkeks were noble beings shining with an inner light. In attempting to perfect themselves they instead tore themselves apart to become two distinct races, Mystics and Skeksis. Only if Jen succeeded in his quest could the urSkeks be born again and the world of the Dark Crystal become whole once more.

# MYSTICS



When, at the instant of the last Great Conjunction, the urSkeks were divided into two races, it was the Mystics who took on the sorrows of the world. Although they had inherited the mystical wisdom of the urSkeks, they were powerless to use it outside their own valley, since the division had robbed them of their ability to act. Their hopes for redemption rest on Jen.

# SKEKSIS



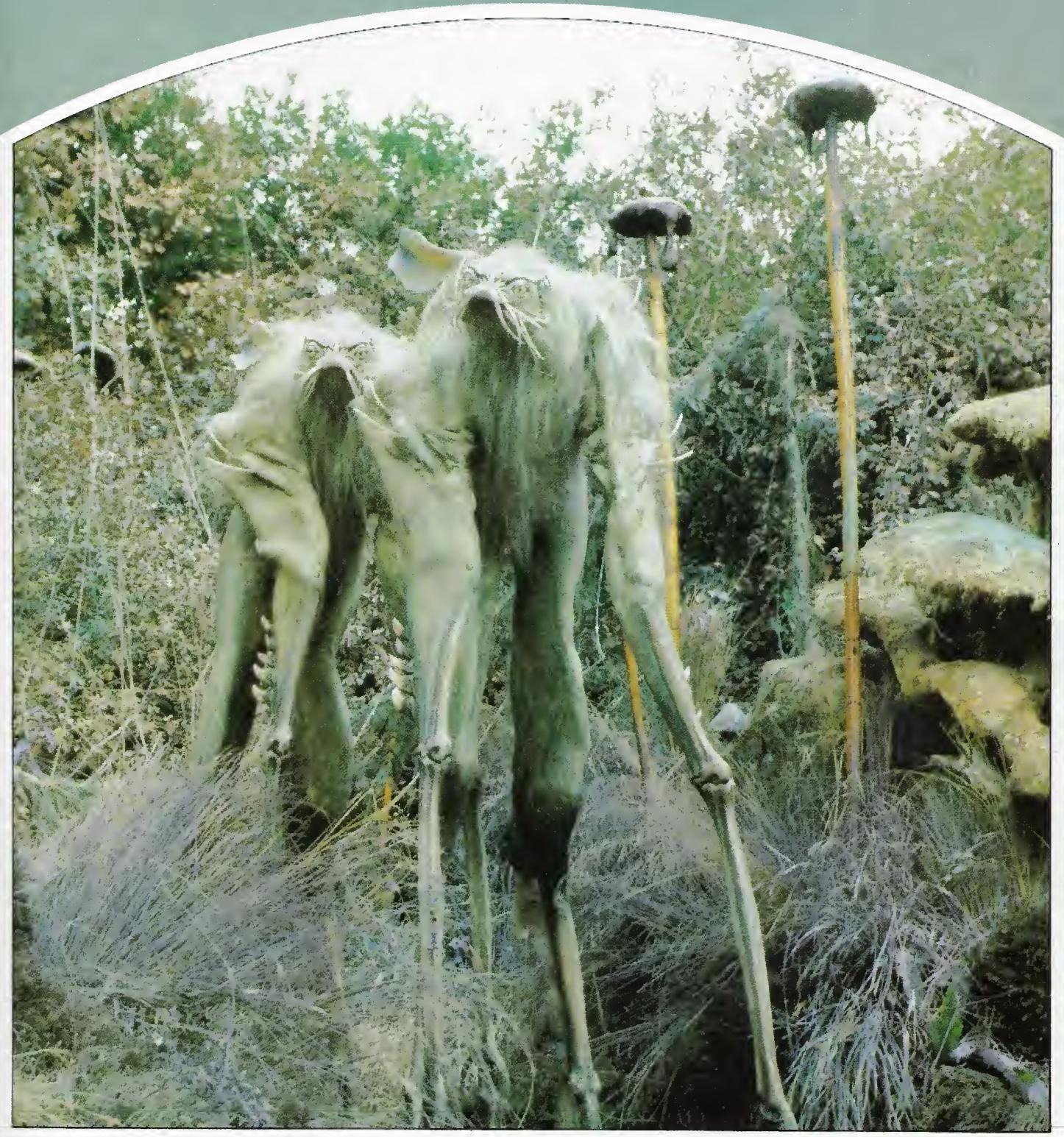
For every Mystic there was a corresponding Skeksis. SkekTek the Scientist was the counterpart of urTih the Alchemist. SkekAyuk the Gourmand was the alter ego of urAmaj the Cook. The Skeksis had control of the castle where the Crystal was kept; in its chambers they practiced their evil arts, hating one another as much as they hated the rest of the world.

# GARTHIM



Clawed warriors of amazing strength and savagery, the Garthim unthinkingly carried out the commands of skekUng the Garthim-Master. Created by skekTec the Scientist they lived in caverns beneath the castle and left their nether world only to plunder the surrounding countryside, from which they returned with slaves for the Skeksis' household.

# LANDSTRIDERS



Friends of Kira, the Landstriders were bitter enemies of the Garthim warriors. Less powerful than the Garthim, they compensated with speed and intelligence. When a Landstrider fell in battle, its flesh was highly prized by the Skeksis, who considered it a great delicacy.

# POD PEOPLE



The Pod People were master gardeners who lived inside their plants. The Garthim disrupted their happy peasant lives when they began to carry off Pod People to the castle. There, drained of their life force by skekTec the Scientist they were reduced to slaves and made to serve the Skeksis' decadent lifestyle.

# POD SLAVES



# ONE

June 2, 1981, I arrived at EMI Studios in Borehamwood, near London, knowing next to nothing about Jim Henson's latest project, *The Dark Crystal*, except that it was an ambitious feature film built around a group of characters entirely unrelated to the familiar world of the Muppets.

After being issued a studio pass, I made my way to Stage 3. Once past the soundproof twin doors, I became aware of a huge scaffolding clad in what seemed to be solid rock rising from a wooden platform constructed four and a half feet above the studio floor. At the top of the steps leading up to the platform, the empty purplish black shell of a sinister creature – part crab, part armored beetle – was draped over a large wooden framework that resembled a gallows. Along one edge of the platform, beneath arc lights that helped illuminate the set, a score or so of performers and crew stood or sat among a hodgepodge of props and electrical apparatus watching the scene that was unfolding on the set.

This set, when I finally saw it, was stunning. An enormous chamber was flooded with light. Its walls were constructed of triangular and trapezoidal slabs of what seemed to be igneous rock, exquisitely striated and glistening with moisture, resembling the walls of some underground cavern. A few of these slabs had been removed, however, to reveal the eerie, icelike glow of pure crystal, which was the primeval fabric of the chimerical universe that was being created here on Stage 3, as I soon discovered. Armored warriors loomed sinister in cave openings that might have been conceived by Hector Guimard as entrances to the Paris metro.

The floor of the chamber was an elaborate mosaic of concentric circles – some parts translucent and illuminated from beneath – decorated with mysterious

yet somehow familiar symbols. At the center of this was a circular hole, above which was suspended a massive chunk of the primeval crystal shaped like a crudely worked flint spearhead, glowing with the same spectral light as the pellucid sections of the walls. Special-effects men, situated in the scaffolding and on catwalks up among the lights far overhead, rained fuller's earth and lumps of simulated masonry down on the scene beneath. The Crystal Chamber was collapsing. I had arrived as the climax of *The Dark Crystal* was being filmed.

The debris showered down on a group of strange, reptilian creatures, man-sized aberrations with anxious, beady eyes and evil-looking canine teeth. Their elaborate, jewel-encrusted costumes proclaimed them as the mandarins of their world. But as these beings thrashed around in panic, it was clear that their world was coming to a sudden and cataclysmic end.

Nearby were two smaller, faunlike creatures. One, the female, appeared to be dead. The other cradled her in his arms, oblivious to the chaos around him – chaos for which he, in fact, was responsible.

In addition to these otherworldly creatures, there were a number of other beings on the set. Not counting the performers who brought them to life (hidden within costumes, beneath the platform, etc.), there were fifteen or twenty individuals out on the floor of the chamber. Co-director Frank Oz stood with the script supervisor observing the progress of the scene on a large black-and-white television monitor. Director of photography Oswald Morris was stationed nearby,



keeping a watchful eye on the lighting and on the camera operators and assistants who manned the two big Panaflex cameras that were being used to ensure complete coverage of the scene. (Each of these cameras, I learned, was specially equipped to shoot film and video simultaneously.) Prop men and electricians kept just outside camera range, as did wardrobe women and puppet "nurses," each armed with a special repair kit with which to solve any problems that might crop up on stage. A sound man with a hand-held boom was taking live sound, yet one could not fail to be aware of the absence of the absolute, tense quiet that usually exists on a film set during shooting. I noticed Frank Oz say something to Dusty Symonds, the first assistant director, who then called up to the prop men aloft that too much debris was falling. This did not interrupt the take.

Later I discovered that while live sound was in fact being recorded for the sake of the rough assembly of the film, at a later date all sound – not only the music and effects but even the dialogue that would be spoken by actors who had not even been auditioned at this point – would be dubbed in. This explained the fact that while Dusty Symonds kept a firm grip on the discipline on set, the atmosphere was relatively casual, almost as it must have been in the days of silent pictures.

One of the performers not required in this scene attempted to explain what was going on. The reptilian characters, which on closer inspection also seemed somewhat birdlike, were the Skeksis, and this chamber

was part of their castle. The armored creatures were the Garthim, warriors of the Skeksis. The girl was Kira and the boy cradling her was Jen, hero of *The Dark Crystal*. The pair was being manipulated by Kathryn Mullen and Jim Henson, respectively; and between takes I saw first Jim's head, then Kathryn's, pop up from below the level of the platform, where the two puppeteers had been concealed.

Before another take commenced there was a bustle of activity. The Crystal Chamber's floor was cleared of fallen debris. Jen's hair was groomed, and dust was brushed from his face. Minute adjustments were made to the costume of each Skeksis. Then the scene was completely replayed.

After an hour there was a significant pause in the action while boards were laid down so that one of the cameras could dolly in toward Jen and Kira as the debris fell around their heads. I seized this opportunity to speak with Jim Henson.

Giving me my first closeup look at one of the Skeksis, Henson explained the mechanisms that controlled its naturalistic eye movements and enabled it to smile and sneer. He mentioned the heaviness of the costumes and the specially designed harnesses that supported them. He talked of how *The Dark Crystal* had been the movie he had wanted to make even before *The Muppet Movie* had been contemplated. Then he asked me if I had seen any of Brian Froud's drawings. "He's the one who created this world."

Gradually I began to learn about the genesis of *The Dark Crystal*.

*Frank Oz (left) and Jim Henson, co-directors of The Dark Crystal*

## TWO



By 1977, when he began to think seriously about the motion picture that would become *The Dark Crystal*, Jim Henson had achieved an enviable position in the entertainment industry. He had first received wide recognition for *Sesame Street*, and then *The Muppet Show* had become a major hit not only in America but in scores of other countries as well. The characters Henson created on screen (Kermit, Ernie, Rowlf the Dog, Link Hogthrob, the Swedish Chef) and those created by key associates Frank Oz (Bert, Grover, Cookie Monster, Fozzie Bear, Miss Piggy) and Dave Goelz (Gonzo, Beauregard, Bunsen Honeydew) were known world-wide. Other puppet shows had enjoyed television success, but it was Henson through his

brilliant grasp of the medium who brought puppetry fully into the video era.

Henson was not content to rest on his laurels, however. He was anxious to make motion pictures; and he felt that his team of artists, craftspeople, and performers was capable of producing the kind of film that no one else could even attempt.

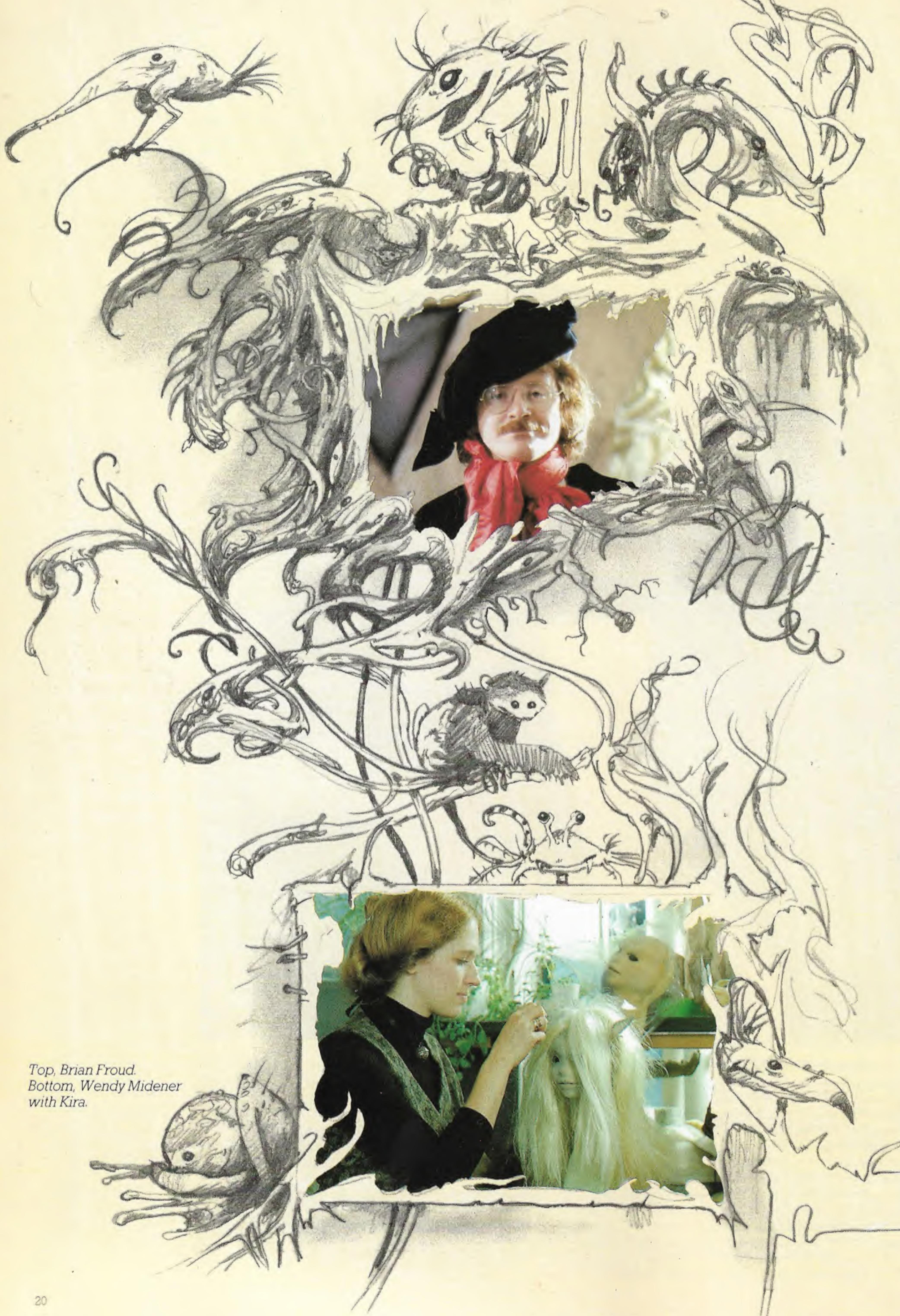
His thinking about the project was original from the outset. Instead of starting with a story treatment, he assembled a group of people with the capacity to invent a world, visualize it, and make it palpable. Only when that world began to exist as a self-contained entity did they consider plot and the detailed development of characters.



Henson's starting point was an illustration he had chanced upon in a children's book: an opulently dressed reptile in a luxuriously appointed bathroom. This suggested to him a decadent culture of reptilian creatures that had somehow gained control of their society. Henson had already developed a comic prototype for this kind of world with such puppets as Scred and Ploobis, which had been built for the *Saturday Night Live* television series (puppets that, incidentally, marked a radical departure from earlier Muppets in that they were equipped with taxidermists' eyes, giving them a balefully naturalistic appearance).

Beyond this there was very little, but as he often does, Henson talked the idea over with his five

children, and other ideas started to gel. He began to picture a cosmos that centered on a castle occupied by a ruling class of the sinister reptiles. Within the orbit of this castle would live peasants and other subservient groups. Henson conferred with Oz and a few others within his organization. It was agreed that what was needed to carry the concept further was an artist who would visualize such a world and set his concept down on paper in a way that would bring it to life for the puppetbuilders and other craftspeople whose task it would be to create what would finally be seen on screen.



Top, Brian Froud.  
Bottom, Wendy Midener  
with Kira.

Both Jen and Kira underwent many metamorphoses during almost three years of pre-production.

Toward the end of 1977, Henson's attention was drawn to the work of Brian Froud, a young English illustrator whose paintings and drawings seemed to embody the kind of vision he was looking for. In *The World of Froud*, the artist had evoked trolls and fairies and other creatures that had their roots in the universe of Celtic myth and Nordic legend. Although Froud was inspired by the work of earlier British illustrators like Arthur Rackham, his imagery, no matter what its sources, seemed fresh and original. Moreover (and this was crucial, from Henson's point of view), he realized this imagery with a wealth of detail that would be of enormous assistance to anyone who wanted to translate his creatures and landscapes into another medium.

Froud came to ATV Studios outside London, where *The Muppet Show* was being taped, to discuss Henson's proposals with him. Unknown to Henson, Froud had actually thought about the possibility of puppets being used to bring his characters to life and thus was favorably disposed toward the project from the outset. Henson showed him photographs of the *Saturday Night Live* puppets, with their naturalistic eyes, and these excited Froud even more.

"The eyes were the key," he would say later. "It was almost as if we designed everything around the eyes."

In January of 1978 Froud arrived in New York to join the small team Henson had set up to concentrate on the project, which would later be titled *The Dark Crystal*. Joining the team the same day was a young dollmaker from Detroit, Wendy Midener, who would also have a crucial role to play and who later became Wendy Midener Froud. Froud began to turn out hundreds of paintings, drawings, and sketches; puppetmakers set to work translating them into working prototypes; and in dozens of meetings ideas were batted about until the world Henson had envisaged began to take shape.

There was still no story, however, until unexpectedly, nature intervened. A blizzard stranded Jim Henson in a motel at John F. Kennedy Airport, and he used the opportunity to begin writing down some ideas. At first he concentrated on defining the character groups that had been extensively discussed at the meetings in the New York workshop. Next, he moved on to writing a detailed treatment of a story, which he titled *The Crystal*. Names would later be changed, the plot would be altered in detail and emphasis, but essentially this was the story that would in the end be brought to the screen.

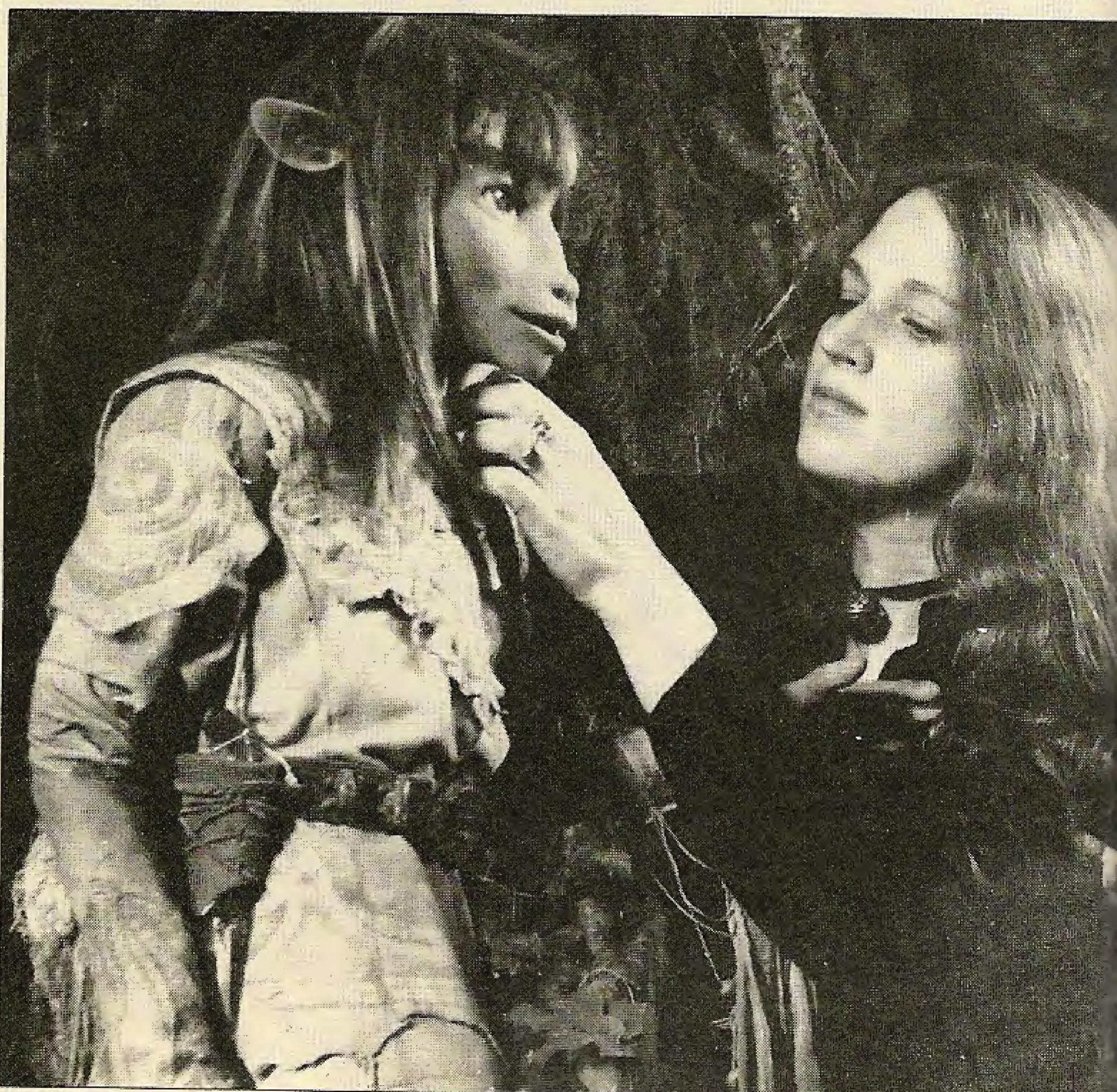
Slowly the team of craftspeople in New York began to grow. Maquettes and prototypes of the various character groups – Mystics, Skeksis, Garthim, Pod People – started to proliferate. Dozens of woodland creatures were made, and Wendy Midener sculpted head after head, trying to hit on a set of features that was just right for Jen and Kira. Some versions resembled human children; others were animalistic.

"It was a matter of trial and error," she explains. "I made one after another until Jim or Brian said, 'I like that one,' and then I'd try to refine that approach."





*In designing Jen and Kira, it was always necessary to remember their backgrounds. Jen's costume, for instance, reflected the fact that he was brought up by the Mystics. Kira's appearance and personality were partly determined by the Pod People, the hard-working but fun-loving creatures who raised her.*





*Gradually, as they evolved through many versions, Jen and Kira became more elfin in appearance. Periodic tests were run to see how effective the puppets were on screen. After each test, adjustments were made until the final figures (bottom with Wendy Midener) were ready to go before the cameras.*



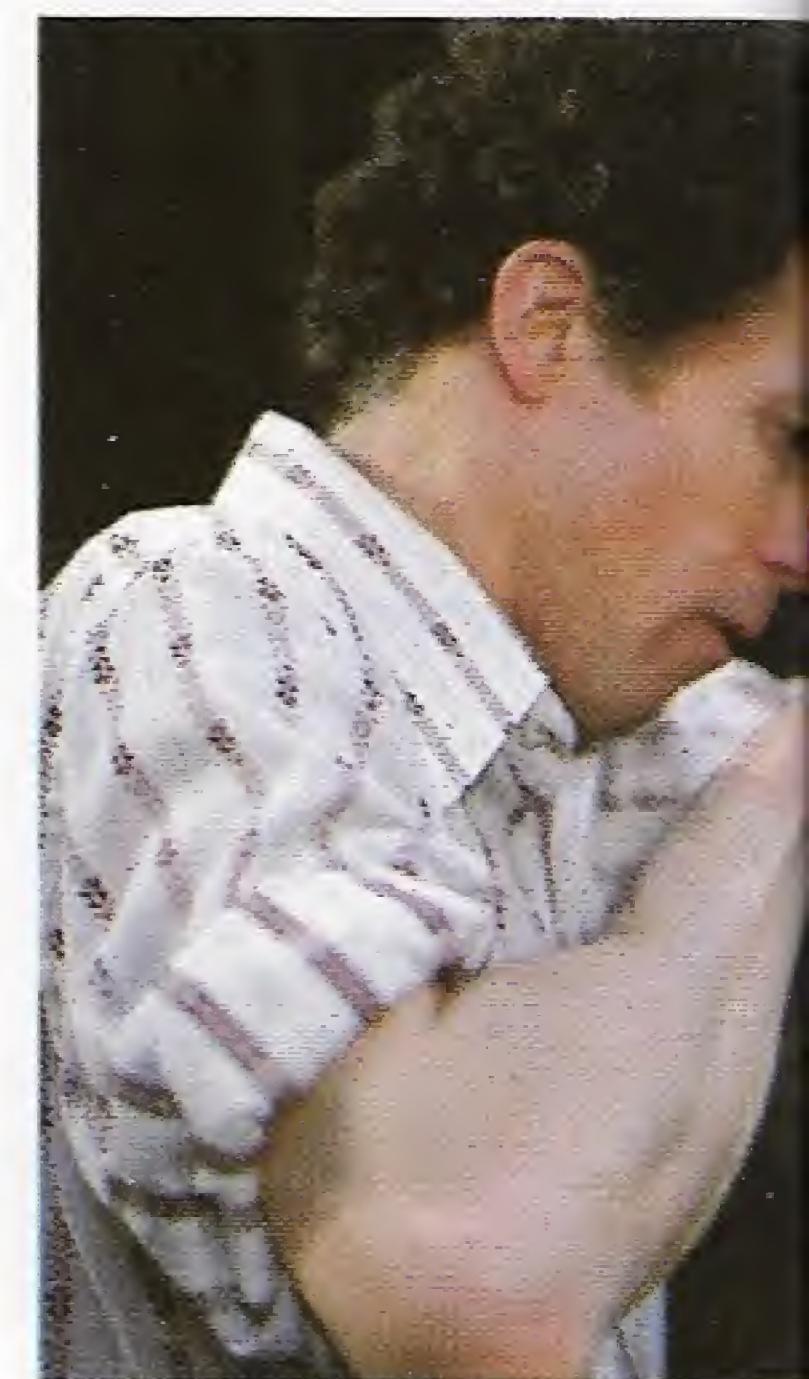
As the team expanded, Sherry Amott, who came to the Muppets from a background in theatrical costuming, was named creative coordinator. In part it was her job to recruit new personnel.

"In the beginning, especially," she remarks, "we needed people with crossover skills, people who were working on the periphery of various disciplines, people prepared to take unprecedented risks."

Not only conventional puppetbuilders were needed but also people with a knowledge of casting flexible latex foam masks or with the ability to design mechanisms that could operate a Skeksis' hands by remote control.



Sherry Amott



Bob Payne



Jim Henson

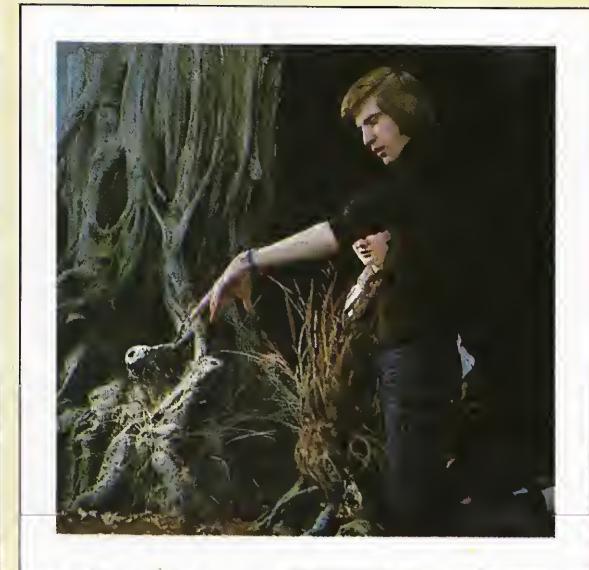
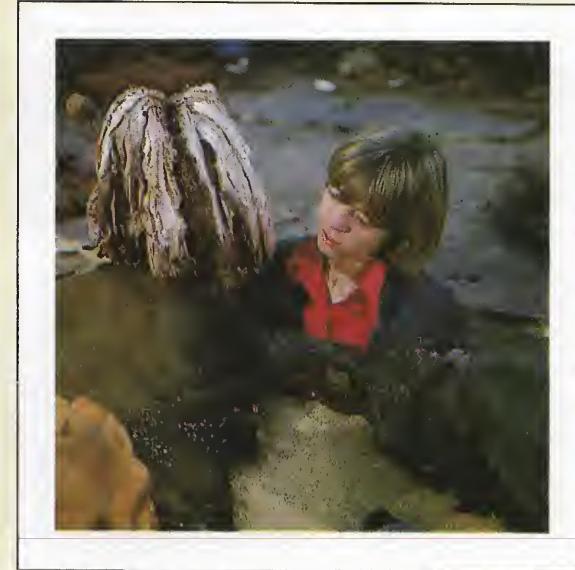


Cheryl Henson



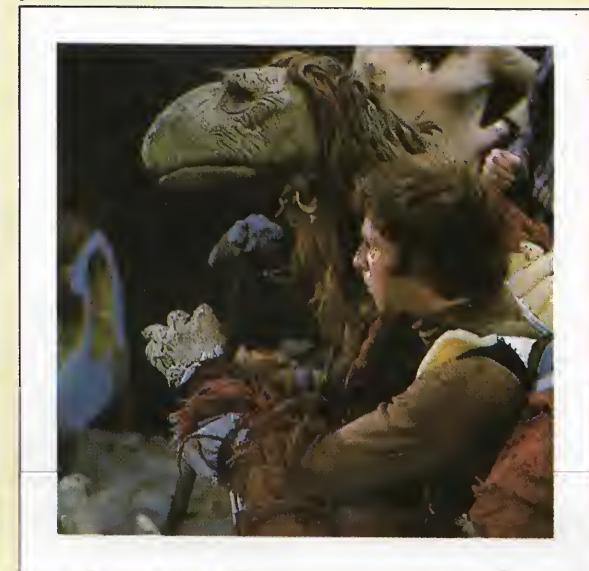
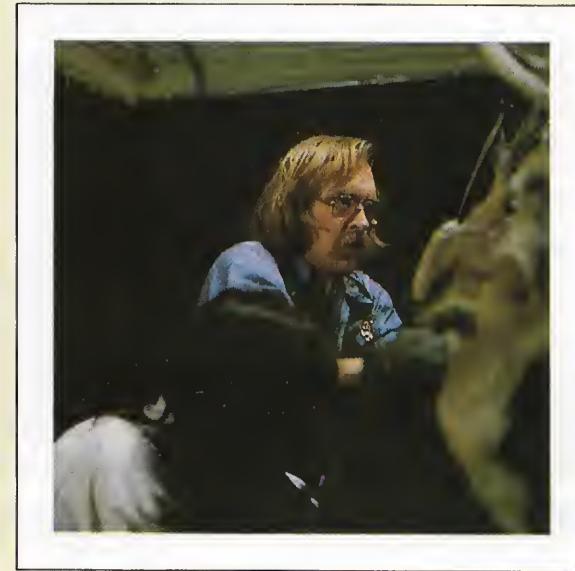
Fred Nihda

*Staff and artists in  
The Dark Crystal  
workshops, as photo-  
graphed by Brian Froud.*



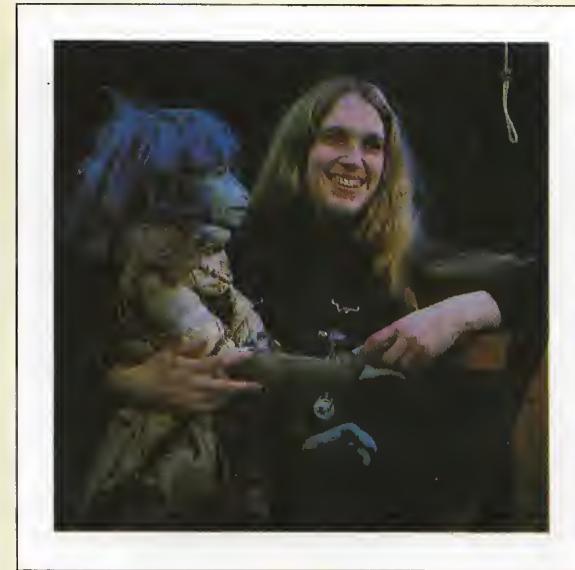
Rollin Krewson

John Stephenson



Mike McCormick

Jean-Pierre Amiel



Wendy Midener

Although Henson had intended *The Dark Crystal* to be his first feature film, the success of *The Muppet Show* dictated otherwise. Preparations for *The Dark Crystal* went on the back burner when *The Muppet Movie* was put into production in 1978. Then the success of that picture dictated another delay while a sequel was planned.

In 1981, almost two years after the original New York team began to assemble, the *Dark Crystal* project moved into its final pre-production phase; before it did so, a major change was indicated. It had been decided that, for a variety of practical reasons, the movie would be filmed in England at EMI Studios. Sherry Amott made a scouting trip to London, and soon the New York veterans were relocated in an old postal sorting office in Hampstead, almost across the street from Jim Henson's London home. There they were joined by a number of British recruits until the sorting office was ready to burst at the seams. Here the final prototypes of the various character groups were built and preparations made for mass production.

Meanwhile, *The Muppet Movie* had brought Jim Henson into contact with David Odell, the writer. Henson decided he wanted to do the screenplay of *The Dark Crystal*. Odell joined the writing staff of *The Muppet Show* but spent a good deal of his time putting into scenes and dialogue a fully developed version of the story that would serve as the vehicle to bring the world of *The Dark Crystal* to the screen.

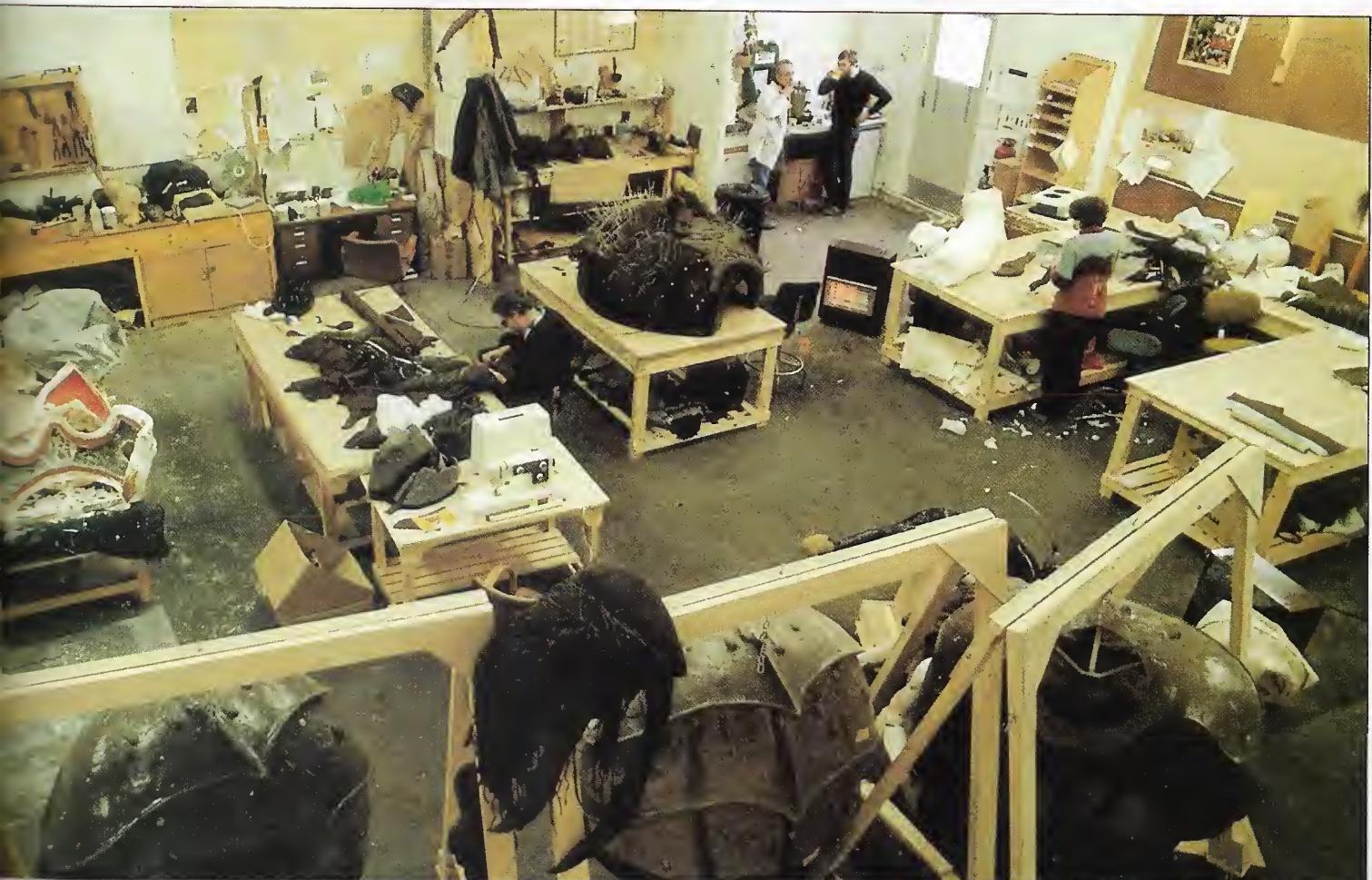




Skeksis costumers at work in the Hampstead shop. In the bottom right foreground are some of Brian Froud's sketches, with fabric samples attached. Left and center front are Skeksis bodies ready for costume fittings.

Below left, another view of the Hampstead shop. Skeksis mechanisms were designed and manufactured in the foreground area.

Below, the Garthim workshop at EMI Studios in London, with the wooden frames from which Garthim shells were suspended in right foreground.



## THREE

Evolving at the same time as the production team itself, of course, was the arcane cosmography of *The Dark Crystal*. An endless stream of drawings, sketches, and designs poured from Brian Froud's drawing board. Included were not only studies of all the characters – both major and minor (and including many that would never reach the screen) – but also representations of astrological charts, Mystic hieroglyphs, crystalline rock formations, symbolic weaving and knotwork, priestly garments, sand paintings, elaborately carved walking sticks and totems, alchemical symbols, floor plans, murals, styles of stonework, cave interiors, exotic species of fauna, and countless other details besides.

The drawings themselves were often exquisite. From the gleaming, razor-edged scimitars of Aughra's orrery to the weathered wood of various Mystic artifacts to the encrusted fabrics of the Skeksis' robes, each material was conjured up with an authority and authenticity that made it seem forever before it was finally given a concrete existence in the workshop.

Froud was delineating a world that was strange but curiously familiar. Looking at his drawings for *The Dark Crystal* one sees nothing that precisely resembles

anything seen before, yet there are constant echoes of known cultures. Rendered on one sheet of sketches may be spiral designs that recall ancient Celtic motifs; on another elements that evoke memories of Navajo blankets, Neolithic earthworks, Mesopotamian reliefs, or Yggdrasil, the Nordic tree of life.

This is scarcely surprising, since in devising a cosmography for *The Dark Crystal* Froud was drawing on his own store of knowledge of primitive religions and esoteric philosophy, knowledge that was supplemented by extensive research. A weighty reference file, assembled by Sherry Amott, is crammed with excerpts from scholarly works dealing with such subjects as burial rites, Megalithic monuments, alchemy, acupuncture, shamanism, and so forth.

Working from the principle that similar beliefs and symbols have been shared by many primitive cultures on our own planet, Froud – in close association with Henson and others – formulated a set of beliefs that might be held in a world such as that of *The Dark Crystal*, a world quite different from ours yet in some ways predicated upon it. Beyond that he considered how such beliefs might be translated into ritual and



ideogram, and it is the careful, almost obsessive attention that has been given to these aspects of *The Dark Crystal* that lends the film its coherence and credibility.

Everything that appears on screen meshes in an ineffable yet understandable way with everything else. Anyone who considers the design of Jen's tunic, the Weaver's loom, the Emperor's scepter, the masonry of the Crystal Chamber, will be obliged to conclude that all belong to a single coherent system. This cosmos has been fragmented into different and conflicting cultures, but each has grown from the same root. And this is made so manifestly clear that it becomes possible for the viewer to believe that everything can be resolved by the millennium at the climax of the movie. Mystics and Skeksis are revealed to be complimentary aspects of a single entity; without this the story would not work. It has been Froud's greatest single contribution to *The Dark Crystal* that he has been able to provide the visual homogeneity that permits so fantastic a world to seem real.

Within such a framework, Jen's adventures – the thread that holds the plot together – can be clearly seen as a classic rite of passage from childhood to

manhood. For audiences to identify with Jen's evolution, it was necessary to make him an almost human adolescent. Paradoxically, this made it more difficult for Froud, Henson, Midener, and everyone else concerned to imagine him (and Kira) convincingly. Confronted with the task of creating a Skeksis, a Mystic, or a Garthim, the artist may start with anything he chooses, since they are creatures of pure invention. The Gelflings presented another situation entirely.

As Walt Disney's animators discovered when they began work on *Snow White*, the first animated feature film, released in 1937, bringing the human form to life raises very special problems, if only because the audience knows exactly how a person looks and moves in real life, and the slightest inaccuracy will ring hopelessly false. Creating the Gelflings confronted Henson and his team with the same set of difficulties, and none of Brian Froud's brilliance at the drawing board could enable them to bypass this one basic issue.

The success of Jen and Kira would rest on the sculpting skills of Wendy Midener and on the two performers – Jim Henson and Kathy Mullen – who would manipulate the Gelflings on camera.



## FOUR

Right, designer Lyle Conway at work on a clay sculpture of Aughra's head.

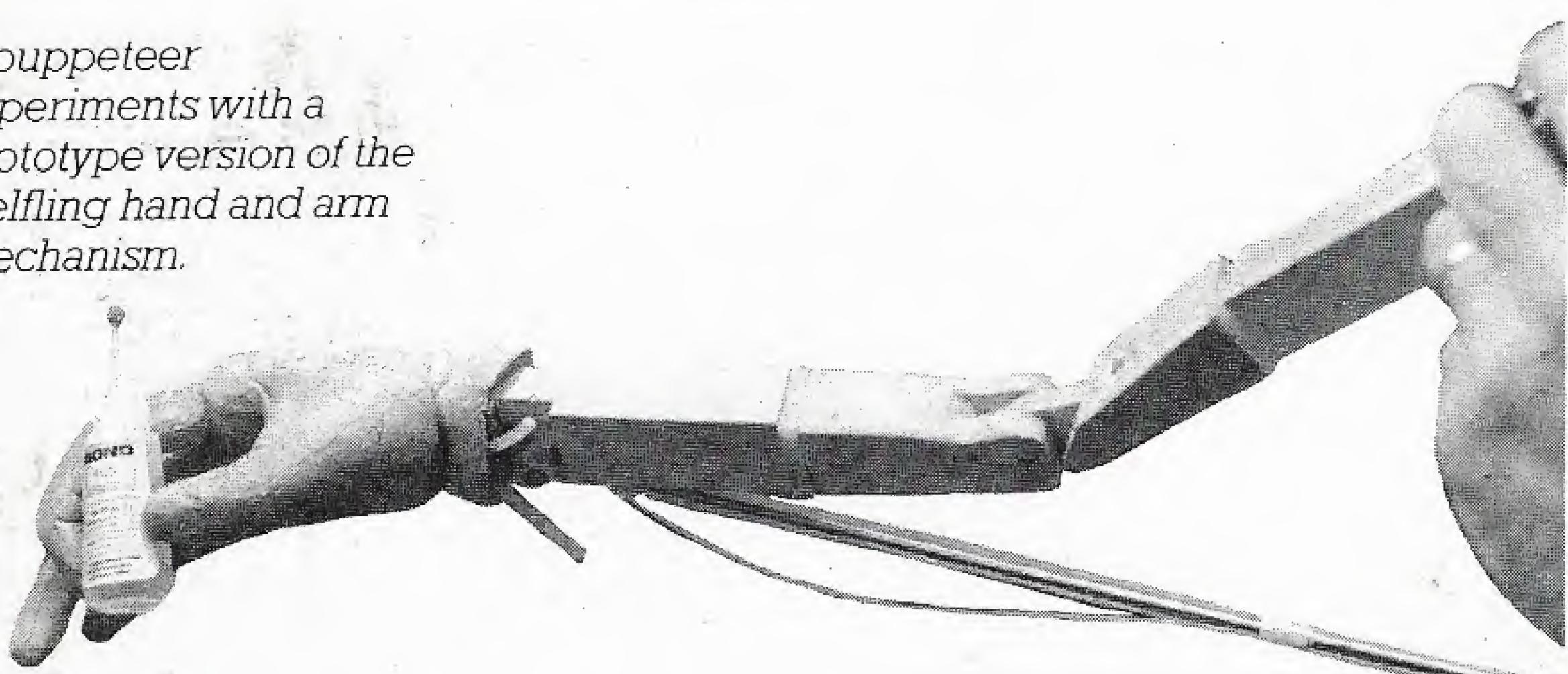
Below, a Skeksis head, cast in latex, and the creature's transparent fiberglass skull with its mechanism partially visible.

*The Dark Crystal* demanded an extraordinary degree of sophistication. Its world could become believable and cast its spell only if it was peopled by beings that could register (and in closeup at that) the entire gamut of human emotions. It could succeed only if its makers could devise puppets that would laugh and cry and cause the audience to laugh and cry along with them.

This was to be a film of ultimate paradox – something never attempted before – a live-action feature film in which not a single human being would be seen. In order to bring Jim Henson's story and Brian Froud's drawings to life on the screen, elaborate sets and models would have to be built, spectacular special effects created and co-ordinated. Above all, though, Henson's puppetbuilders and performers faced the toughest challenge of all.

Puppetry is an ancient art that over the centuries has taken many different forms. It can be as crude as a Punch and Judy show or as subtle and elaborate as the Italian marionette theater with its commedia dell'arte figures. Each tradition has its own conventions and creates its own illusions. One of the highest forms of puppetry has evolved in Japan, where great masters remain in full view of the audience as they manipulate their characters, relying on their artistry and skill to bring the puppets to life so forcefully that the spectators ignore the puppeteers entirely, rendering them in effect "invisible."

A puppeteer experiments with a prototype version of the Gelfling hand and arm mechanism.

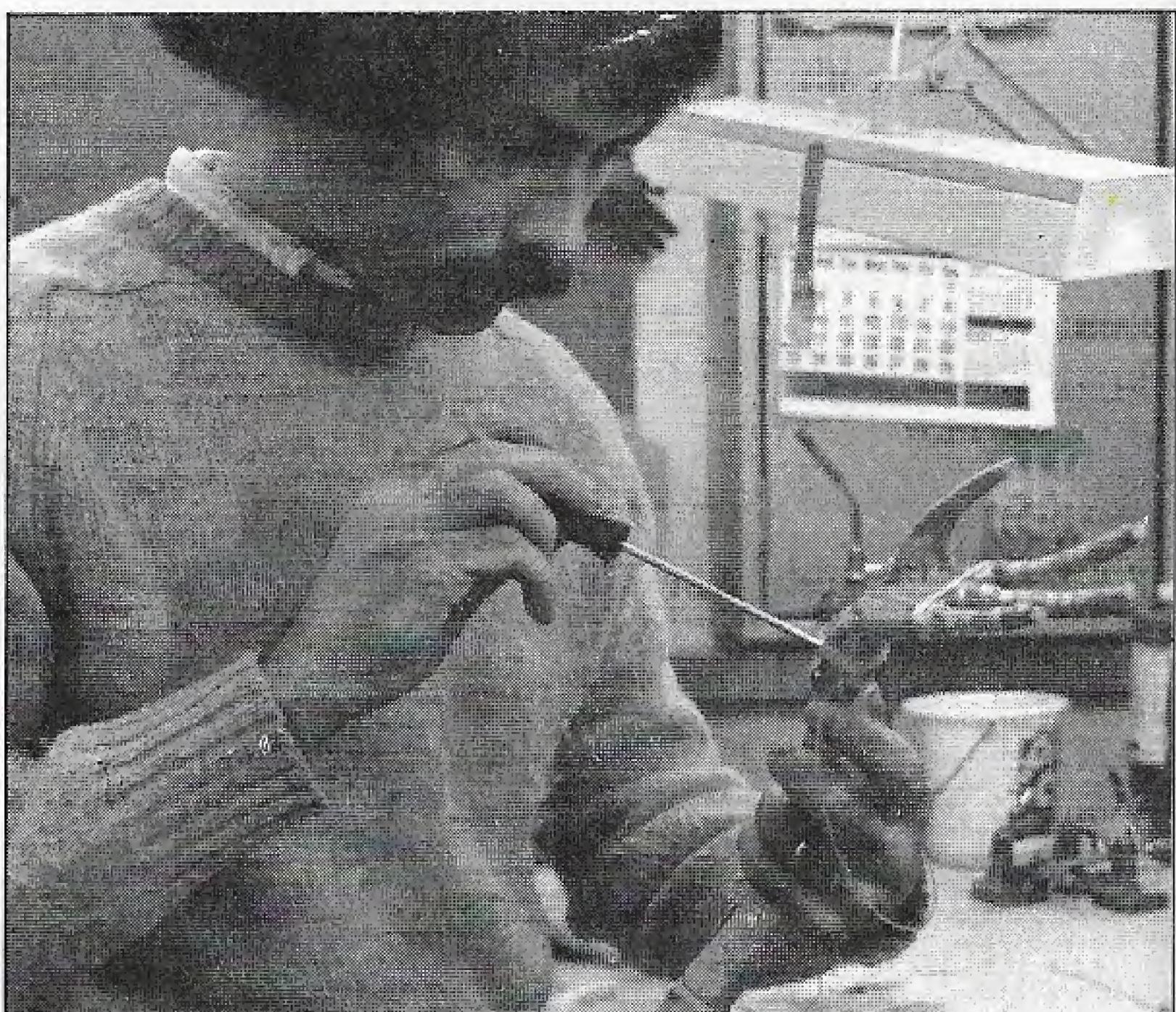
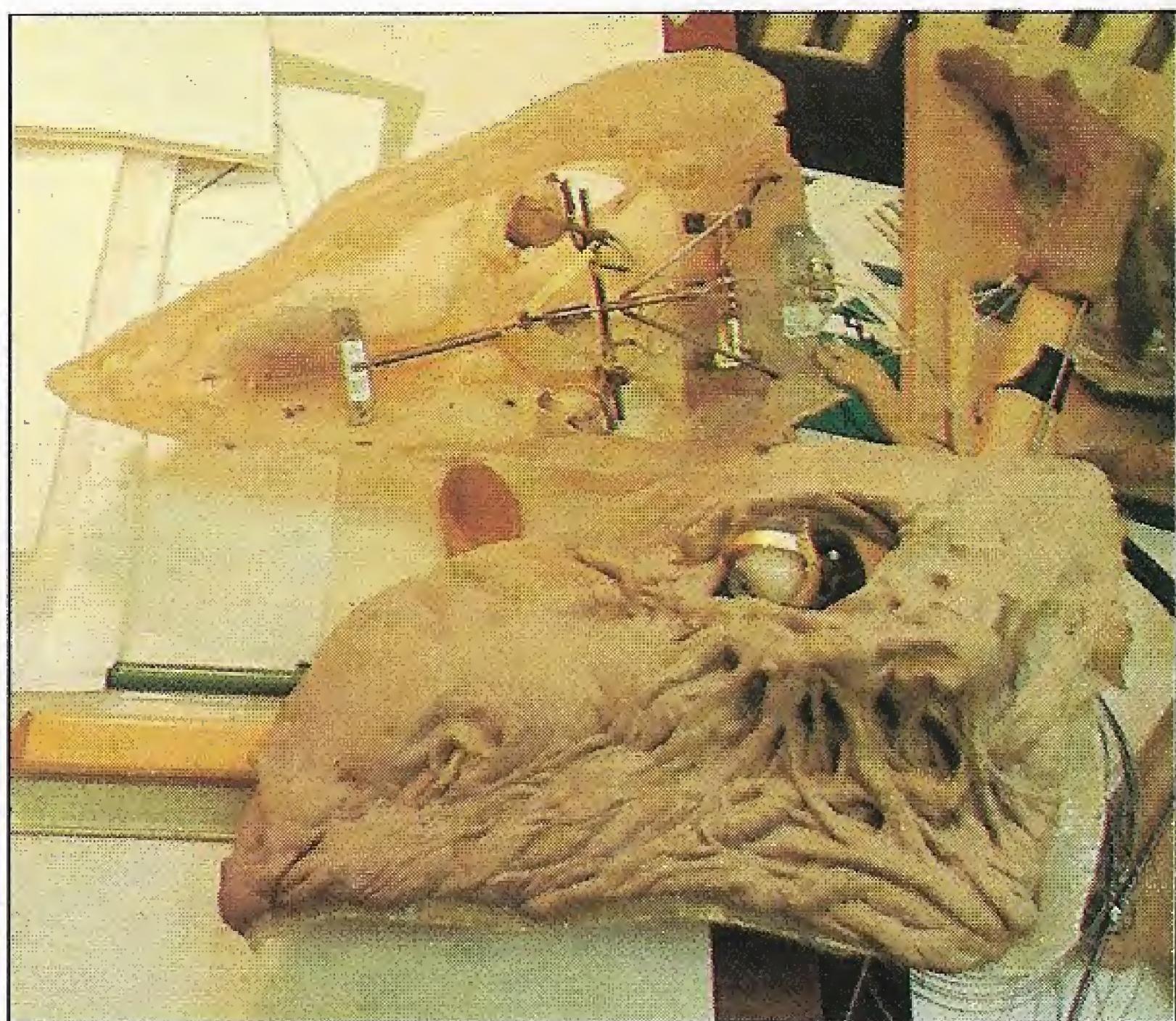


Right opposite, mechanical designer Leigh Donaldson adjusts the mechanism of a Gelfling hand.

Below right opposite, in the workshop, a puppeteer demonstrates the cable mechanism that operates a Mystic head.

From the point of view of puppet engineering, Jim Henson's Muppets are not original. Clever design and expert handling have endowed them with personality to spare, but they remain simple hand puppets or hand-and-rod puppets of the sort that have been around for thousands of years. Henson's great achievement has been to free these puppets from the bondage of the proscenium arch and take advantage of the new world of illusion made possible by the electronic magic of television. Having perfected his skills on *The Muppet Show*, he demonstrated with *The Muppet Movie* and *The Great Muppet Caper* that the same basic methods could be applied to film. Everything he learned in making these movies and during his quarter century in television would be of value when *The Dark Crystal* went into production; but there would be one major difference: the level of naturalism demanded by the subject called for a new generation of puppets, puppets that would be radically different from any ever built before – so different, in fact, that a question would arise as to whether they should be called puppets at all.

To focus, for a moment, on just a single aspect of the challenge, the eyes – as Brian Froud recognized – would be crucial to the success of the characters that were being developed. Muppets had eyes that, for



the most part, were comic-strip ciphers: as effective as, but no more naturalistic than, the eyes of Barney Google or Little Orphan Annie. A few were equipped with mobile lids, but that was as far as they had evolved until the design of the *Saturday Night Live* puppets, which were provided with taxidermists' eyes, giving them their own sinister presence.

Still, static taxidermists' eyes, no matter how realistic, would not suffice for Jen, Kira, Aughra, or any of the characters who would inhabit the world of *The Dark Crystal*. They needed eyes that blinked and swiveled as naturally as those of any human performer. This presented two challenges that no puppetbuilder had ever faced before. Precisely the right kind of glass (or plastic) eyes had to be found, and mechanisms to control them on cue had to be devised. Oddly enough, the latter proved the simpler of the two tasks; Henson's puppet engineers had become proficient at producing the sort of mechanisms that could be adapted to these ends. The search for glass eyes, however, took months. The problem was not in finding a number of skilled manufacturers of artificial eyes willing to help the Henson people; it was simply that these companies were not equipped to produce eyes of the shape that was needed. Sherry Amott reports that every conceivable source, not excluding Madame Tussaud's Wax Museum, was canvassed before the appropriate eyes were found. Eventually, the supplier turned out to be an English firm that hand-crafted the eyes to Henson's specifications.

As the workshop team settled into its new quarters in Hampstead, it was challenges like these that had to be met. By this time the puppetbuilders had a fairly clear idea how each of the characters should look. Brian Froud had established that, and dozens of maquettes had been built. Much work on the Skeksis, for example, had been done by Lyle Conway, a sculptor who had considerable experience as a designer of dolls and who had also done stop-motion work for commercials and for the motion picture *Vortex*. Later he moved on to become head of the Aughra and urSkeksis design group.

But even when prototypes had been assembled, many of the questions about how to make the puppets work remained unanswered. How, for instance, could a Skeksis – as large as a man but considerably more bulky and awkward – be made to move convincingly, especially since, even using the lightest materials available, each Skeksis would weigh thirty pounds or more? How could the face of a Skeksis be made to be fully expressive? No matter how beautifully the features were sculpted or how carefully they were cast in latex, the matter of giving each Skeksis a sufficient range of smiles and sneers and facial tics for the puppeteers to work with needed to be solved. As for larger motor functions, how could a Skeksis wield a sword? Or snatch the scepter from the dying Emperor?

Some of the pioneering work on these problems had been done in New York. A prototype Skeksis hand mechanism, in effect a fairly sophisticated artificial limb operated by cable controls, had been built there by Leigh Donaldson and fully tested. Flexible rods, inserted through tubes and operated by a remote, hand-held trigger device, regulated the motor functions of each joint, each finger. Cable control, it had been decided, would be the device by which many of the puppets' primary and secondary

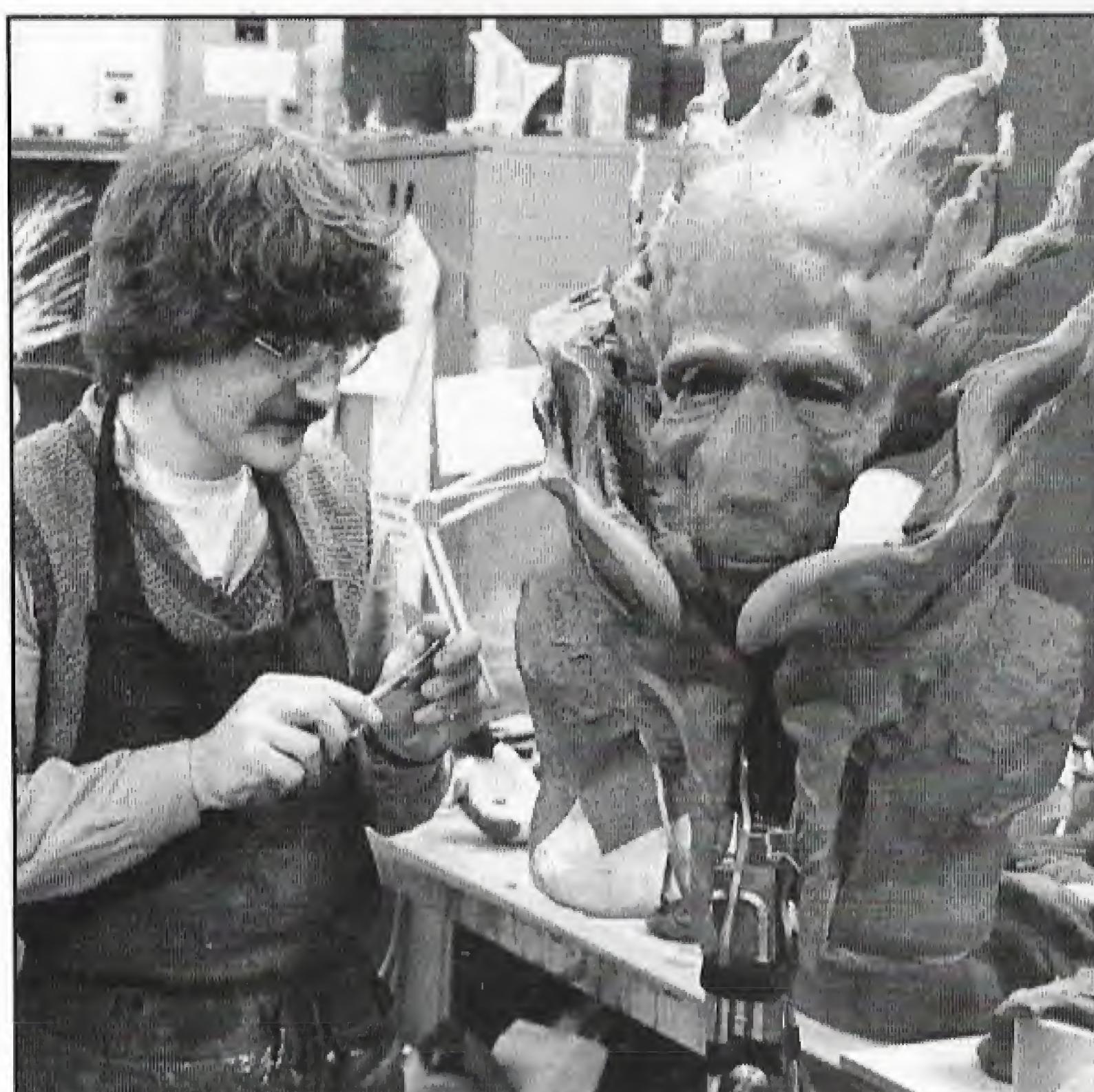
movements could be activated. Each Skeksis, for example, would be in the charge of a principal puppeteer who would control the broader movements of the body and head. He would be assisted by a cable crew of up to four people who, under his direction, would be responsible for eye movements and many other functions.

These cable controls could be concealed by the voluminous robes each Skeksis wore, which would serve, in effect, as a kind of portable puppet theater in which the kneeling puppeteer could hide, one hand and arm thrust above his own head into the neck and head of the puppet proper. At the same time this "portable theater" had to be attached to the puppeteer's body in such a way that it would move naturally when he moved (reverting from theater back to puppet). Special lightweight metal harnesses had to be devised so that the weight of the entire assembly could be cantilevered off the puppeteer's hips – the hips being the most efficient load-bearing area. This harness would have to support the armature for the entire Skeksis assembly, and that assembly would need to float free of the puppeteer's body so that the movements he or she transmitted to the puppet would have a character of their own. What was to be avoided at all costs was the impression that a Skeksis was simply a human being in an elaborate costume. Each Skeksis, then, had to be a seamless union of puppet, costume, and theater.

A confrontation between the Ritual-Master and the Garthim-Master



*Sculptor David Barclay puts finishing touches on an urSkeks head.*



*At work on a Skeksis prototype, designer Mike McCormick applies plaster to a wire mesh armature.*



*A prototype skeksis mask.*



*A skeksis head fitted with eyes and teeth.*

*A clay head of a Skeksis sculpted by Lyle Conway, who was a key figure in the development of Aughra and the entire Skeksis character group.*



*Mari Kaestle cleans out a cast of an early Skeksis skull.*



*A Mystic head waiting to be cast.*



The Skeksis throne, molded from fiberglass, was fabricated by the EMI prop department.



The latex foam shop, under the direction of Tom McLaughlin, was responsible for singularly exacting work. The heads and limbs cast there had to be not only lifelike but also strong and flexible. Seen here are untrimmed casts of Mystic feet.

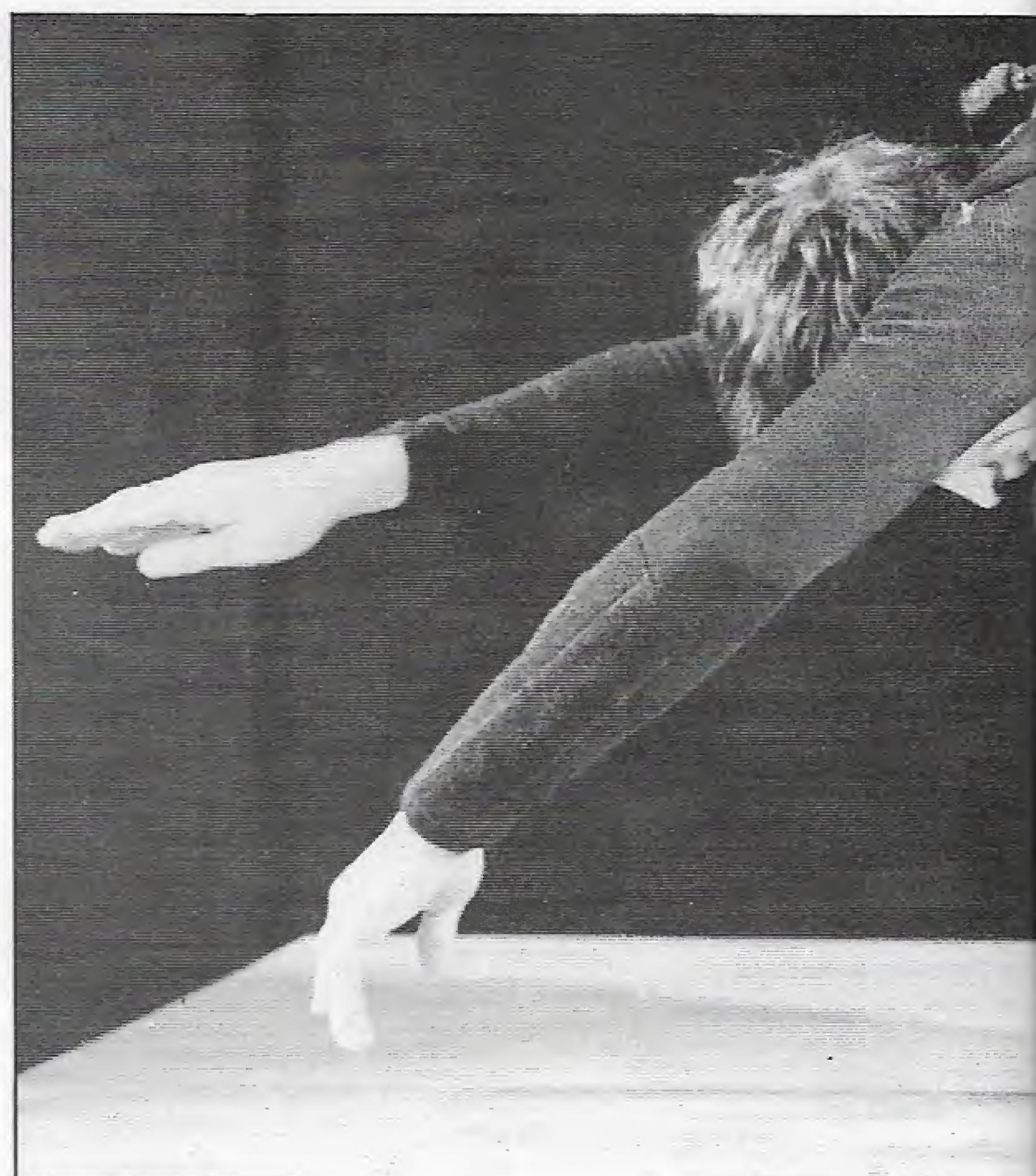


A Garthim shell ready for casting.

*An early Mystic costume.*



Other character groups presented equally formidable difficulties. Both the Garthim and Mystics would be operated by performers working in extremely uncomfortable crouched positions. In these instances, mime skills would be called on more than those of puppetry, but many of the considerations remained the same. Harnesses had to be devised so that the weight of the assembly could be properly distributed and so that movement could be transmitted in the most effective and convincing manner. Both Garthim and Mystics were equipped with extra "limbs" (limbs that could not be treated as natural extensions of the performer's own limbs), and ways had to be devised of rigging them to move believably in concert with other parts of the body.



*Wearing his complete Mystic rig, but only parts of the costume, Brian Muehl rehearses urSu's*

*death bed scene. The photograph gives an intriguing glimpse of the Mystic's hand mechanism.*





*Manipulating the Mystics required both mime and puppetry skills and placed great physical demands on the performers. Here Brian Muehl, wearing only the tail section of his rig, demonstrates the basic working position. When fully costumed, his right hand was inside the character's head.*



*At an early stage of pre-production, a mime uses improvised props to try out an interpretation of UrSu's death bed scene.*



*Brian Muehl being helped into his Mystic rig.*



*During filming, Frank Oz gives last minute instructions to the performer inside a Mystic costume.*

*On a sound stage at EMI Studios, a Mystic rehearses in front of a mirror.*



Above, Fred Nihda, in charge of the Garthim character group, drew on years of experience in creating stage armor.

The Garthim had been in mass production since August 1980, but as the start date of the film approached, the performers inside the Garthim still could not move with the kind of speed that would make them chilling adversaries. To remedy this the creature's tail unit was redesigned and lifted off the ground to reduce drag.

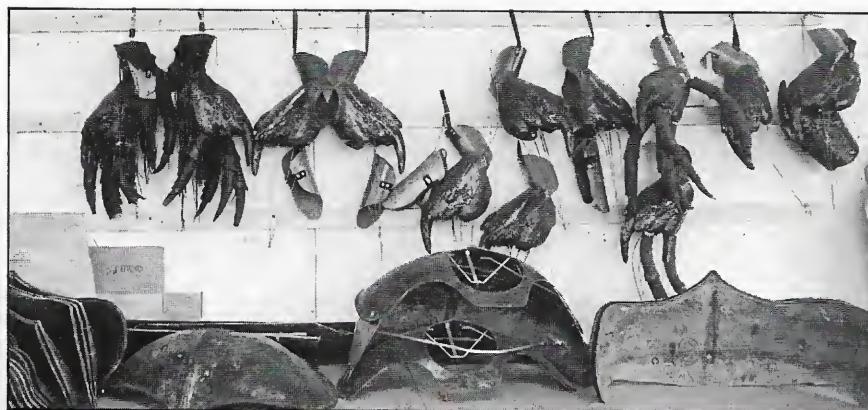
Until that point the Garthim had been green, but it was decided that the Landstriders, with whom the Garthim would fight a pitched battle, should be that color; consequently the Garthim were resprayed a blackish purple, a change that enhanced the Garthims' menacing appearance and made them blend all the more effectively into their native environment – the caverns beneath the Skeksis' castle.

Mechanisms had to be devised to operate the Garthim claws and the rest of their offensive arsenal. More significantly, though, their bodies could not be disguised with elaborate costumes, as in the case of the other character groups. The Garthim were all shell, assemblages of articulated plates. Because of this, their development was placed under the control

of Fred Nihda, a costume designer with vast experience in fabricating stage armor.

To make a Garthim, each part of the shell had to be sculpted in Styrofoam, then cast in fiberglass. The next piece of shell could not be sculpted until the previous one had been cast, as it was crucial to ensure that the overlapping and interlocking systems functioned properly. Each Garthim required fifty-nine separate pieces of armor plate; and although every effort was made to keep the totality as lightweight as possible, the assembled creature still weighed seventy pounds.

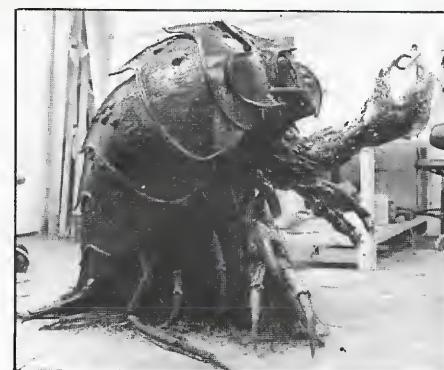
A few characters, by contrast, came together relatively easily. Aughra, for example, existed only as a head when a video test was called for at short notice. A body was quickly assembled from three bean bags and a hastily sewn costume, all mounted on a modified Skeksis harness. So the essence of her body movement was established from the start; modifications were made, however, in her design assembly.



*Each Garthim was assembled from fifty-nine separate elements*



*Like other characters, the Garthim went through many stages of development. The final version weighed seventy pounds, but the main bulk of their armor plating was floated off the performer's back and shoulders by means of a specially designed harness that permitted considerable mobility. At one stage, experiments were made with a two-man rig but – except for certain close-ups – in the end each Garthim used in the movie was operated by a single performer.*



## FIVE

While *The Dark Crystal* was still at a relatively early stage of planning, Gary Kurtz, producer of *Star Wars*, approached Jim Henson with an interesting proposal. Yoda, a naturalistic puppet, was part of *The Empire Strikes Back*, the next part of the *Star Wars* saga. Would the Henson organization lend a hand in realizing Yoda?

Henson told Kurtz about his own plans for *The Dark Crystal* and replied that if there was no conflict of interest, he would gladly give any assistance he could. The results of this meeting were twofold. First, Henson suggested that Frank Oz would be the ideal person to take on the role of Yoda, and his recommendation was approved. From that point on, Oz – with Wendy Midener, Kathryn Mullen, and other Henson people – worked closely with Stuart Freeborn and the *Star Wars* team that was developing the character, and then brought Yoda to life for *The Empire Strikes Back*. They thus gained experience that was to be of great value when they turned to *The Dark Crystal*; in the process they discovered how physically demanding *The Dark Crystal* was likely to be for the performers.

Second, Kurtz agreed to become co-producer of *The Dark Crystal*. This made perfect sense, since no one in the Henson group had the experience that Kurtz had in producing big-budget fantasy films. Kurtz, moreover, was accustomed to working with British crews and, in fact, had his operational headquarters at EMI Studios, which he had been instrumental in having reopened for the production of *Star Wars*. He also agreed to function as second unit director on *The Dark Crystal*.

Executive Producer David Lazer – a long-time Henson associate – could now divide his time between *The Muppet Show*, where his responsibilities were enormous, and preparations for *The Dark Crystal*, which ranged from acting as liaison with Lord Grade (who was backing the film) to negotiating contracts and ensuring that workshop personnel were satisfactorily housed.

Frank Oz had originally told Henson that he did not think he would be needed for *The Dark Crystal*, but during the filming of *The Muppet Movie*, Henson prevailed upon him to come into the project as co-director. (In fact, for years Oz had shared with Henson much of the responsibility of staging scenes for the Muppets. Although they often have different ideas, the two work so closely together that it is almost impossible to say where one man's input gives way to the other's.)

Dusty Symonds was chosen to be first assistant director. A veteran of other large-scale productions such as *Superman*, he was an obvious selection.

During the course of 1980, the search began for the people who would fill other key positions: director of photography, production designer, film editor, musical director. With the exception of the last named, these people, along with the entire crew, would be hired for the two productions. In this way they could gain experience handling puppets on *The Great Muppet Caper* before tackling the more demanding tasks of *The Dark Crystal*.

As director of photography, the production team selected Oswald ("Ossie") Morris, a cinematographer of vast experience whose credits include *Moulin Rouge*, *Beat the Devil*, *Moby Dick*, *Look Back in Anger*,

*Oliver*, and *Fiddler on the Roof*. Henson, who considers himself an inexperienced director, was very pleased with the choice, believing that Morris was the kind of cinematographer who would not only guarantee beautiful lighting and imagery but would also be forthcoming with valuable advice.

For production designer, the producers secured the services of Harry Lange. Lange had been an artist for NASA – envisaging future space flight projects – when Stanley Kubrick discovered him and brought him to England to contribute his talents to conceptualizing the future world of *2001: A Space Odyssey*. Since then, he had established a considerable reputation as an art director. Gary Kurtz was especially well acquainted with Lange's abilities, since he had worked on both *Star Wars* and *The Empire Strikes Back*. It would be Lange's task to translate Brian Froud's drawings into physical settings just as the people in the Hampstead shop were translating drawings into puppets.

It would also be his job to take the specific needs of the puppeteers into account. Each set, for example, would have to be elevated above the studio floor on a platform. The reason for this is simple enough. If puppets are to be presented within a fully three-dimensional set – that is, a set that has a floor as well as walls and a ceiling – the floor must have holes in it where the puppeteer can conceal himself/herself, or the part of his/her body that is not hidden by the character's costume. This permits the kind of wide shot that greatly adds to the realism of the production. It is achieved by building each set on a platform and by constructing the floor of that platform with interlocking modules, any of which can be removed to provide working quarters for the puppeteers. "For *The Dark Crystal*," Jim Henson explains, "as with *The Muppet Movie* and *The Great Muppet Caper*, we designed the floors in such a way that we could remove a row of modules from one place to another." While enhancing the naturalism of the sets, such techniques added further to the complexities of the production, limited the camera angles that could be selected, and demanded that each scene be "edited" in the director's head before shooting commenced.

The job of film editor went to Ralph Kemplen, one of the industry's most sought-after professionals, whose credits include *The African Queen*, *Moulin Rouge*, *A Man For All Seasons*, *The Day of the Jackal*, *Room at the Top*, and *Oliver*.

One of the most difficult tasks was finding someone to compose the score for the film. Henson was anxious to discover a musician who was young and inventive, who had the necessary experience yet could work with the Henson team in a flexible and experimental way. The producers had almost despaired of locating the right man when they heard of a young composer, Trevor Jones, who was scoring a John Boorman picture, then called *The Knights*. (It later became *Excalibur*.) This was Jones's sixth feature. While attending the National Film School, he had also scored dozens of student movies. He was an innovator – adept at both conventional orchestral scoring and employing synthesizers and other electronic devices. Better still, he was enthusiastic about working with the *Dark Crystal* team in precisely the freewheeling way Henson had envisioned.

1 Jim Henson (left) with co-producer Gary Kurtz (center) and co-director Frank Oz.

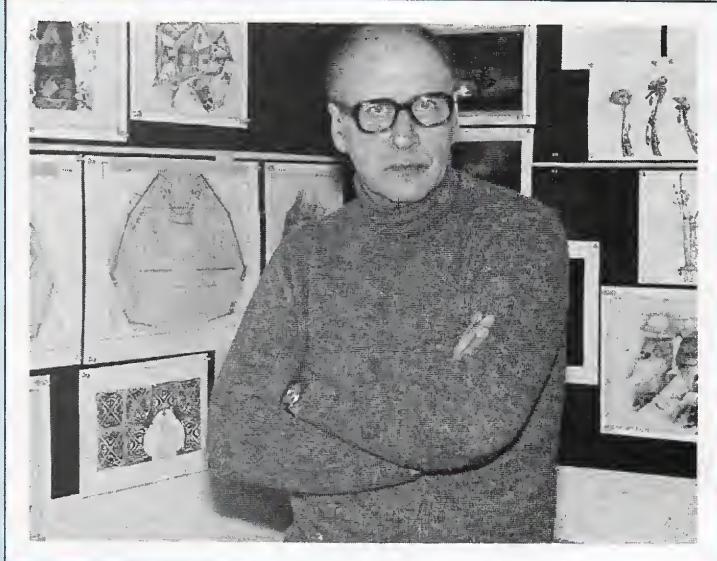
2 Executive producer David Lazer.

3 Assistant director Dusty Symonds.

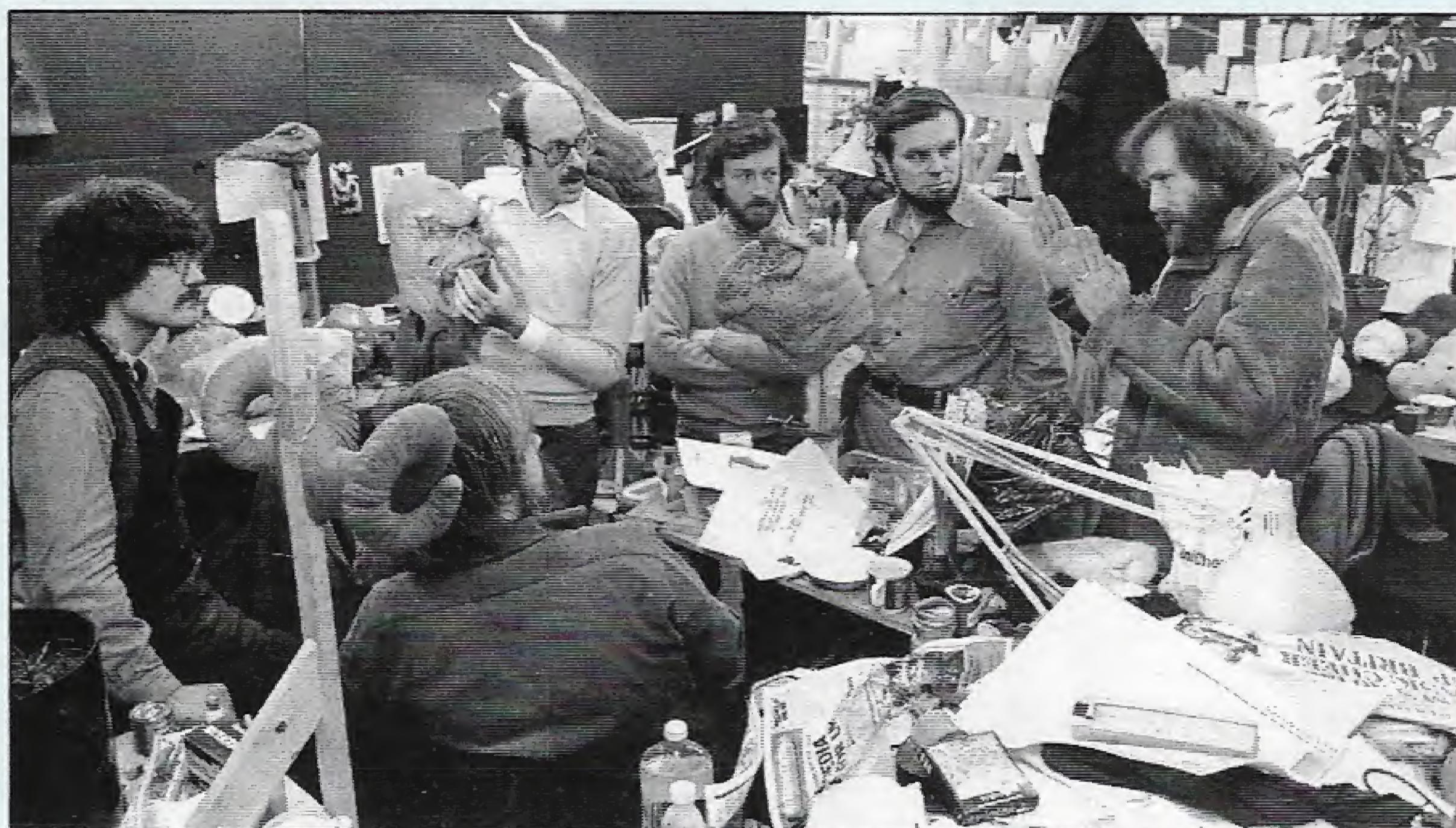
4 Production designer Harry Lange.

5 Cinematographer Ossie Morris.

6 Composer Trevor Jones (left) with conductor Marcus Dodds.



*At a workshop meeting, Jim Henson talks to a group that includes (left to right) David Barclay, Frank Oz, Duncan Kenworthy, Gary Kurtz and, back to the camera, Lyle Conway.*



*Left to right, art director Terry Ackland-Snow, Jim Henson, Harry Lange and assistant art director Fred Evans study a set under construction.*



*Kathryn Mullen talks with Frank Oz about the role of Kira for The Dark Crystal*



*Gary Kurtz appears to be holding a conversation with the Garthim-Master but is, in fact, talking with puppeteer Dave Goelz, who is concealed beneath the Garthim-Master's robes.*



*Left to right, Frank Oz, Jim Henson, art director Leigh Malone and puppeteer Bob Payne.*

*Jim Henson with Jen.*



*Dusty Symonds and Jim Henson.*



*Mick McCormick clowns with one of the Pod People.*

*Below, Gary Kurz explains a point to Jim Henson and Brian Froud.*



## SIX

For Jim Henson, images and music are the key elements in filmmaking.

"From my first experiments with film," he reports, "I just loved what could be done with the montaging of visual images. I was fascinated with a kind of flow-of-consciousness form of editing, where one image took you to another image, and there was no logic to it but your mind put it together. I've always felt that music and image work on one level, and the spoken word and dialogue work on another, much shallower one. That's one of the reasons why in *The Dark Crystal* I started off trying to do a film with as little dialogue as possible. I think that if you're working with images and music, you're really doing a much more interesting thing, and you're talking to people on more of a gut level."

Brian Froud's drawing for a Mystic costume.



One consequence of this emphasis on the visual for its own sake is that everyone concerned with the making of the picture becomes involved in the creative act. This was especially so in *The Dark Crystal*, since the characters themselves were being created from scratch. Seen in this light, the critical nature of Brian Froud's input is evident, as are the contributions made by every member of the team.

The art directors and set builders, for example, faced a singular challenge. In many movies, sets exist primarily as appropriate and unobtrusive surroundings in which a human drama unfolds. Where *The Dark Crystal* was concerned, however, each set – whether Mystic Valley, the Crystal Chamber, or the Gelfling ruins – was conceived as something that helped define an entire world. Each rock, every last stalk of vegetation, would contribute to the overall impact of the movie. And this principle extended to every detail of the production. The mechanisms that operate Jen's hands, the fabric from which a peasant's tunic is sewn, the way a forest creature can be made to move – each of these particulars, and thousands more, would help sustain the magic on screen.

It is not surprising, then, that the level of enthusiasm in the various workshops and design studios was high. There were differences of opinion, of course – it would have been impossible to put together such a group of imaginative individuals without there being divergent esthetics – but that in itself became part of the creative process. The give and take simply inspired those involved to greater efforts. Everyone realized that they were breaking new ground, that they were engaged in a unique and challenging project.

Principal photography was set to start, at last, on April 14, 1981. Months earlier, workshop personnel had begun spilling over from Hampstead to various facilities at EMI Studios, and soon the entire operation had moved there. By this time most of the technical problems had been solved, but much remained to be done; in fact, shop activity reached a fever pitch the staff had never known before.

It was one thing, for example, to have a working Mystic prototype, but by the start date, ten Mystics would be needed, each carefully differentiated from the others in keeping with its assigned role. Brian Froud had lavished a great deal of time and effort on defining each Mystic down to the smallest detail; now physical substance had to be given to his work. The lines etched by time on each Mystic's features needed to be realized as a living runic maze. The magic garment worn by each Mystic – half coat, half horse blanket – had to be carefully individualized. Colors, fabrics, decorations, all had symbolic functions. For urSol the Chanter a coat of padded and ruched velour was decorated with motifs representing musical tones. The garment of urUtt the Weaver, on the other hand, was twisted and knotted from strands of raw fiber, while the urNol the Herbalist had to be provided with a dark leatherlike coat embellished with concentric configurations. Then each garment had to be artificially aged so that it would seem as ancient as the Mystics themselves.



*Parts of Mystic costumes,  
fabric samples, and  
Mystic tails hang in a  
corner of the EMI  
workshop.*

There were similar concerns with the Skeksis. Successful prototypes had been made, but again ten variants were needed, each having to be tailored to the specific needs of the puppeteers who would be manipulating them.

SkekSil the Chamberlain, performed by Frank Oz, became the most complex of all the Skeksis. As finally built, the Chamberlain was equipped with twenty-one cable-controlled functions, requiring up to four people to operate – undoubtedly one of the most elaborate puppets ever constructed. Its eyes, eyelids, eyebrows, beak, and hands were all fully articulated. Pneumatic devices hidden within the head gave Oz a considerable repertoire of sneers and

sadistic grins with which to work. In his hands, the latex mask became almost as expressive as a human face.

SkekZok the Ritual-Master, performed by Jim Henson, and the Garthim-Master, performed by Dave Goelz, were almost as complex. Other Skeksis were somewhat simpler, but each required a cable crew of at least two people to complement the primary performer within the character. Like the Mystics, each Skeksis had to be differentiated from all others by means of physical attributes and costume. Notes taken at meetings in the months before the final versions of the characters were built give some insight into the process that led to their creation.



**SLAVE MASTER**

We see him kicking, whipping slaves. Evilly silent. Hisses. Sneers. Metallic hook, sheathed. Pulls off sheath, revealing hook, herds slaves around. Directs their movements. Sees that dead slaves are carried away, or that machinery rolls over the dead ones, like in pyramid building. Surcoat - leather, hooks, metal clasps, chains, manacles. More chains, padlocks. Hook seen grabbing peasant hands, neck, head. Hook seen pinning notes between peasants to floor. Back prong on costume opens and closes like scissors. Shiny fabric on gown like snakeskin, colours/tones like slaves. Head attached to collar with chains. Scars. Moist, wet snakeskin texture, like layers of crocodile skins, surround head-neck area, yet remain flexible like gear shift box surround. Like mock turtle plastic wrinkled pieces in Alice in Wonderland. Slave control tools, Garthim-like claws. Hard plates, chain mail, armour. Hanging sleeves with detailed hard and soft bits.



**SCIENTIST/DOCTOR**

Pale. Yoke-like neckbrace or brace with metal bits. White or pink, hinged chrome-plated sections. Plastic and chrome tubes. Latex sheeting thing for under or over sleeves. Leg appliance - exaggerated. Very finely mechanized. Gears, levers, machine parts. Gleaming metals, glass. Limps with cane. Special sound of artificial leg. Constantly fingering his instruments. Bionic type arm. External structure on outside of atrophied arm, to help it move - pneumatic devices - hisses, pins into bones of arm. Structure starts at cowl, leads off from it down his arm - view from side of body like a nautilus machine, or wheelchair, or locomotive wheels. Loci description. Italian futurist sculpture, movement machine, other side of body normal. Wound on sleeve, suture pins. Transparent tubes - liquids, fluids. Materials like clear cast resins and polypropylenes. Cowl like iron lung - a medical support system for him. It hisses.

The Skeksis unit, under Sarah Bradpiece, set about translating these evocative notions into reality. It may be remembered that director Erich Von Stroheim is supposed to have instructed all the actors playing officers in his 1925 version of *The Merry Widow* to wear silk underwear so that they would feel like young aristocrats in Hapsburg Vienna. A similar principle was applied to costuming the Skeksis. Since they were to be a ruling caste in the final stages of decadence, their robes were made from costly silks, velvets, laces, damasks, brocades, furs, and exotic feathers. After the costumes were sewn together, they were deliberately torn apart, ripped to shreds and tatters, sprayed with paint, and caked with wax and simulated filth. The

results were stunningly effective.

The biggest question marks hung over Jen and Kira. They had, by now, found their final form, but how effective would they be on screen? Kathryn Mullen had been working with versions of Kira for months but still did not feel completely comfortable with her. The cable controls passing up through the puppet's neck hampered her wrist and hand movements, and the hovering cable crew was distinctly inhibiting. (With larger characters like the Skeksis, it was easy enough to hide the cable crew; that was not the case with Kira, who was small and had to be capable of quick and natural movements.) This was one of the last problems on the film that would be solved.



#### GOURMET

Head - Robert Morley. Jowly, bushy eyebrows, sweaty, burping. Stuff food into cheeks. Lifts head to swallow, like a pelican. See food travelling down. Cheek bulges mechanized. Wine stains. Bits of encrusted food. Slaves always carrying trays of food for him - silver goblets, small sugar things, tidbits for him to nibble. When he talks he sprays food and saliva. Has a serviette or handkerchief tucked into sleeve. Surcoat dark glaze - creme brulee! Inside collar - skirts, pantaloons, like on Roast Pork or Leg of Lamb. Back costume piece like a Lobster of Crayfish presented on a tray. Feelers reach over back of Skeksis and move. Pastry on shoulder rolls. Scored Pork with cloves and cherries, with apricot glaze. Sausage skirt. Body bulges, tummy pops buttons, slits gape, pink extrudes. Ham pale pink, edges of white fat. Has beautiful crystal goblet with murky wine. Has soup that eats him - clams in soup. Hands - long fingernail to pick teeth. Little finger to cock, lifting teacups.

*In the Hampstead shop, Brian Froud's drawings for the Ritual-Master are displayed alongside costume samples.*



*Above, a maquette of the head of the Ritual-Master, by Brian Froud.*

*The costume of the Ritual-Master before it was "aged". The breastplate was molded from fiberglass. The robes – based in part on ecclesiastical capes – were sewn from gold lamé, heavily encrusted with metallic braid, and decorated with quasi-religious symbols.*



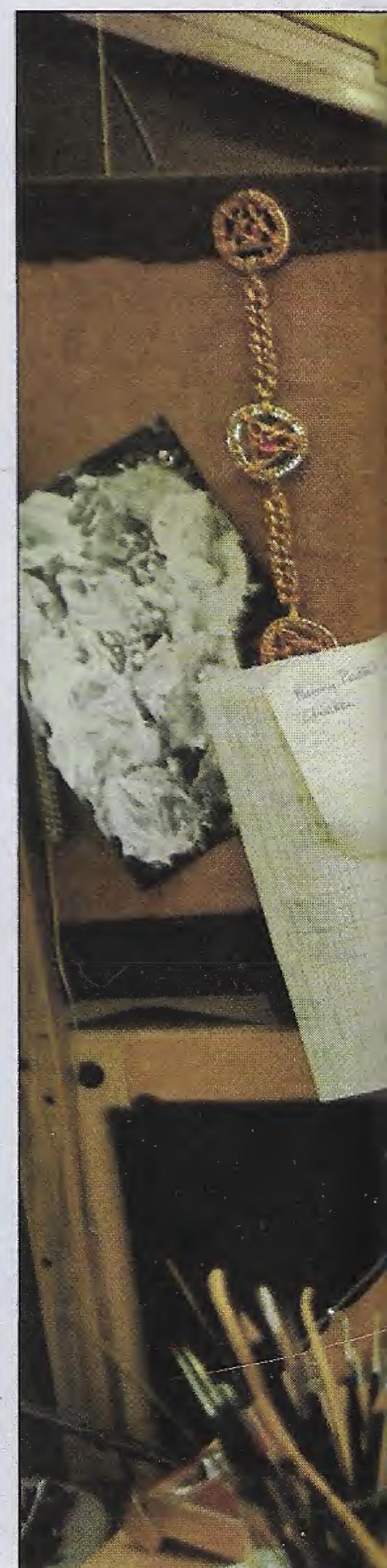
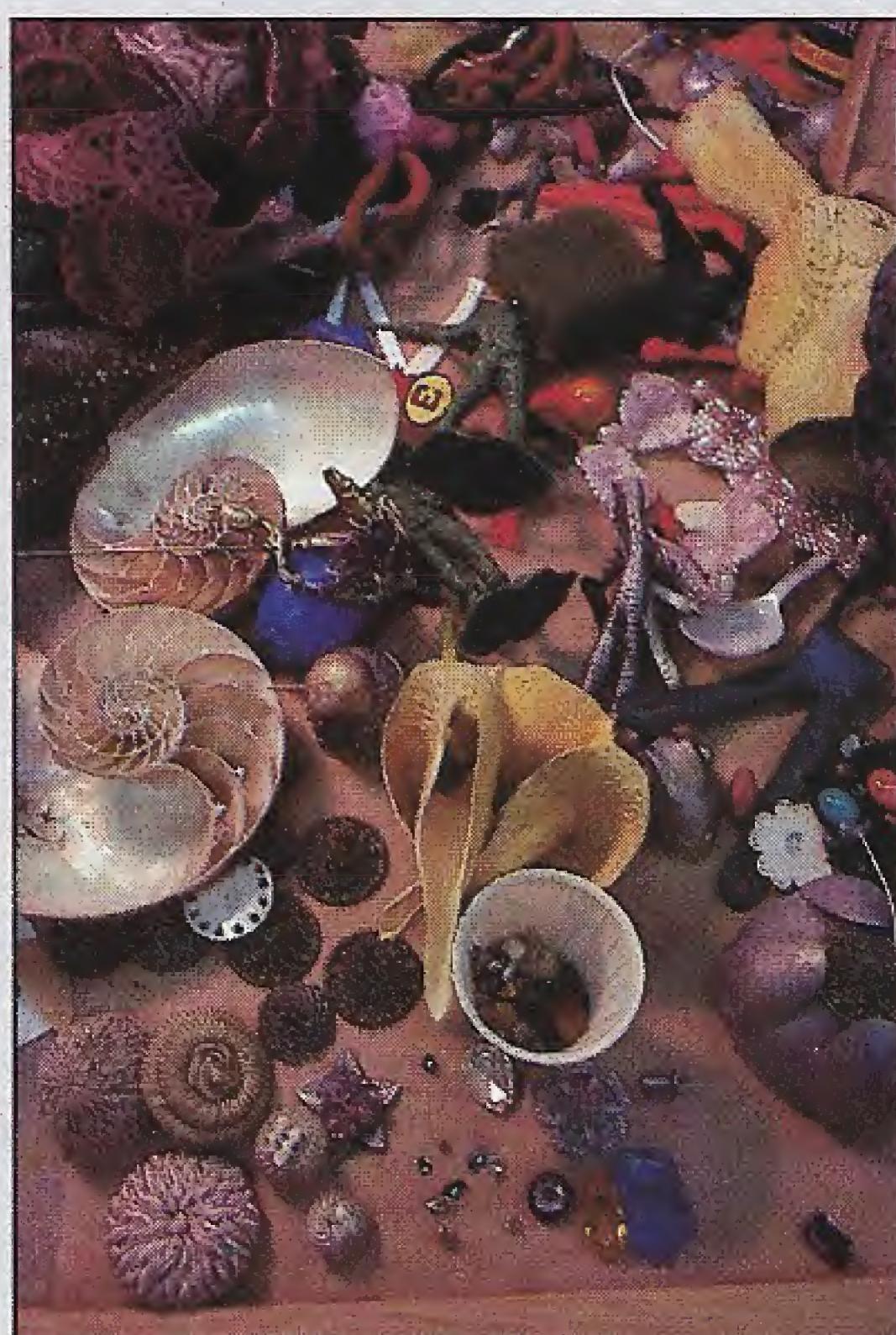


*The Ritual-Master's costume as it appeared after it had been subjected to the aging process – hacked with blades, rubbed with abrasive materials, and smeared with paint and dirt.*

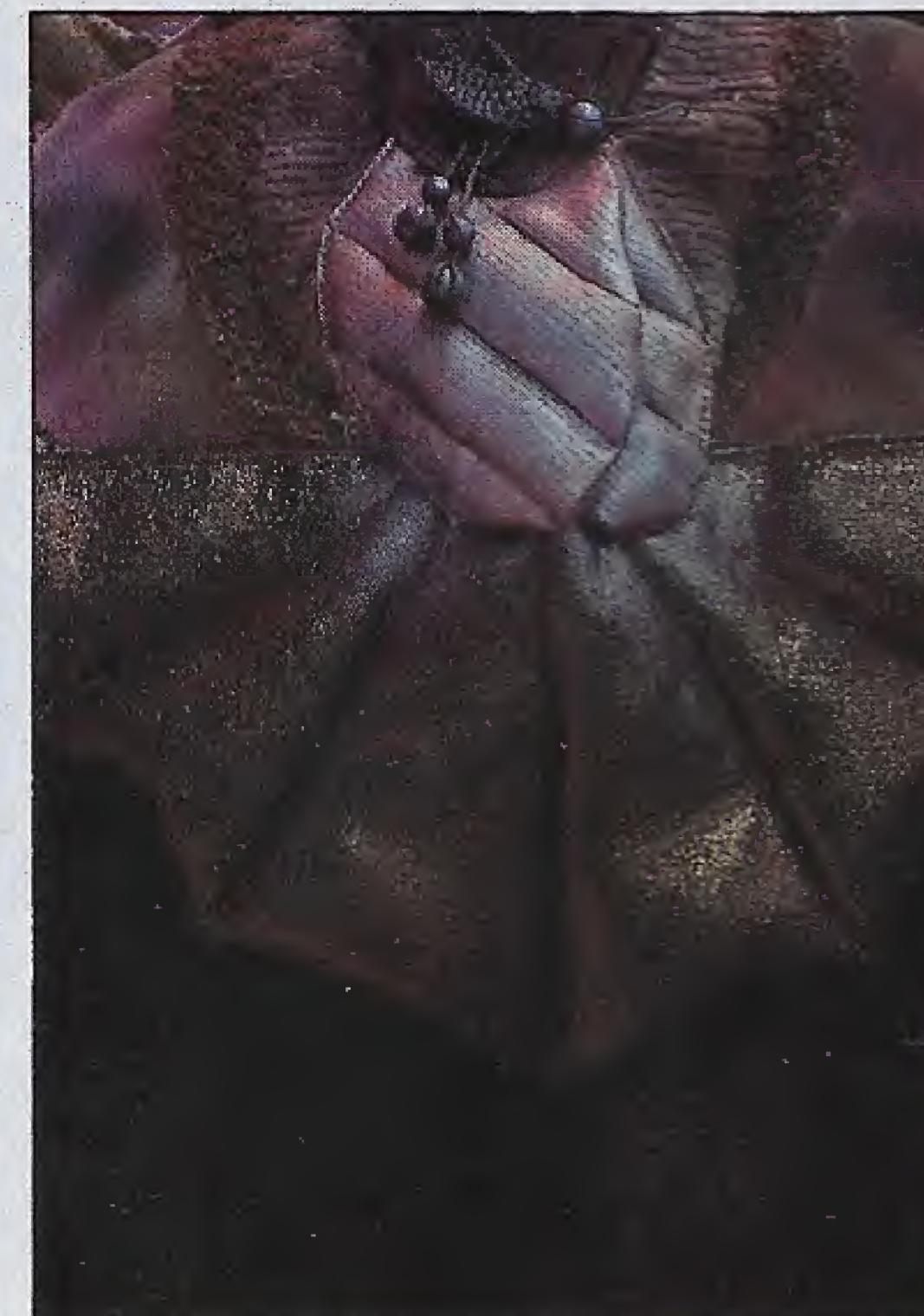


*The Ritual-Master as he appears on screen. The author of false prophecies and fraudulent myths, skekZok uses manipulation and lies to influence the lives of the other Skeksis.*

*In his conceptual work for The Dark Crystal, Brian Froud was concerned not only with the design of characters and settings, but also with textures of all kinds – surfaces, fabrics, ornaments. Designs drawn from nature were the inspiration for much of the symbolic adornment that encrusts almost every object and item of clothing in the worlds of Skeksis and Mystics. The spiral pattern found in certain kinds of sea shells, for instance, is found throughout the world of The Dark Crystal.*



*One of Brian Froud's sketchbooks on his bench in the New York shop.*





Brian Froud is a skilled sculptor as well as a draftsman. In the New York shop, he created these early maquettes for several characters who would eventually find their way onto the screen.



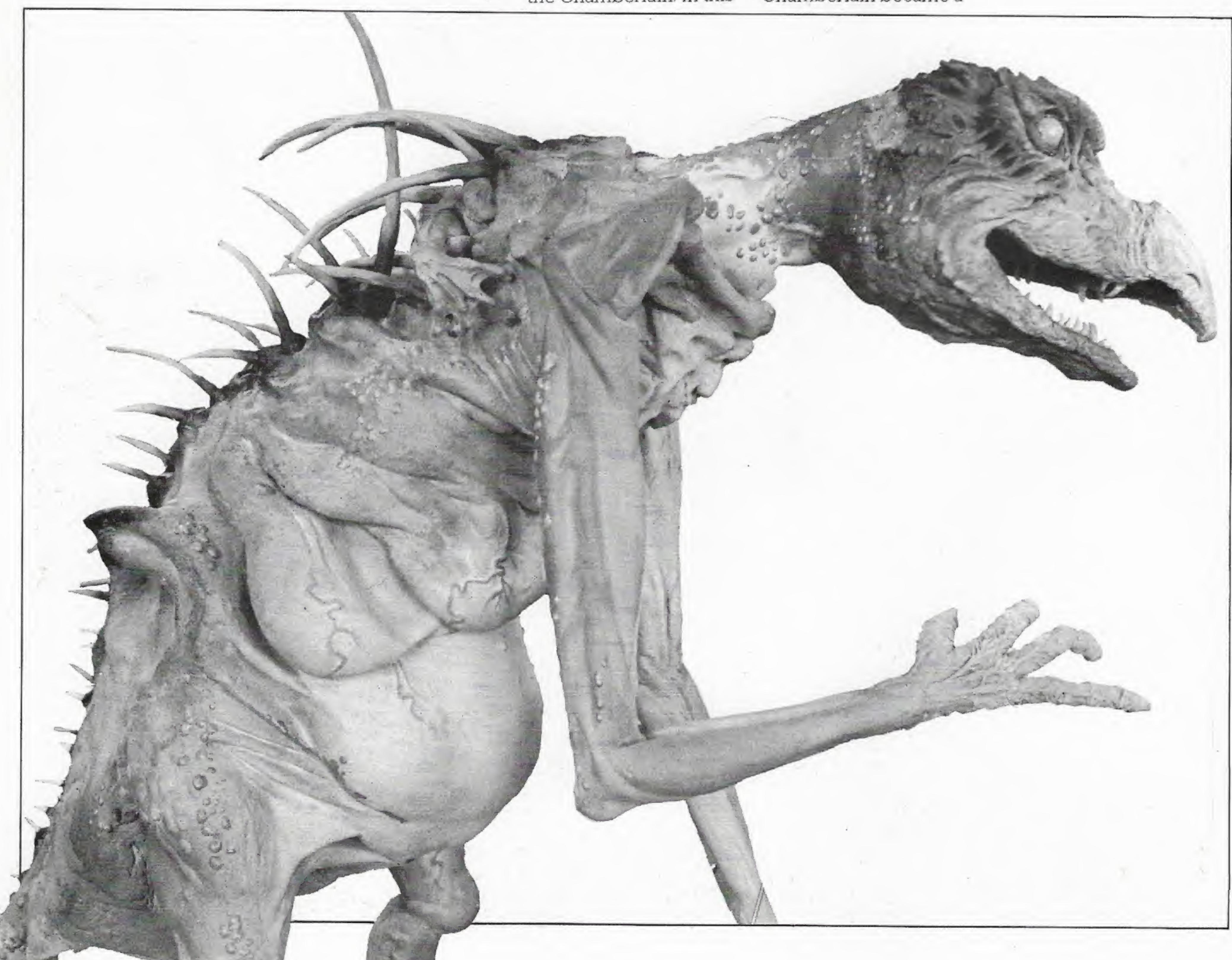
Much of the Skeksis jewelry was made on this workbench by Kathryn Kubrick, daughter of filmmaker Stanley Kubrick. The pendants, rings, and chains of office displayed symbols that are found throughout the Skeksis castle.



*Sarah Bradpiece (right), head of the Skeksis unit, took on the task of creating the anatomy of the Chamberlain. In this*

*way, she defined the physical attributes of the Skeksis once and for all; so the naked Chamberlain became a*

*turning point in the development of the entire character group.*





After losing his duel with the Garthim-Master, the Chamberlain is driven up against a wall and stripped by the other Skeksis. This scene required the building of a naked Skeksis. Normally Skeksis appeared to be bulky and formidable, an illusion created by the voluminous and over-padded costumes they wore. Shorn of his finery, however, the Chamberlain proved to be a scrawny, paunchy creature with hideous spines growing from his back.

Performed by Frank Oz, the Skeksis Chamberlain was probably the most mechanically complex character created for the movie, capable of an extraordinarily wide range of facial expressions. Whether dueling with the Garthim-Master or pleading with the Gelflings, his expression is always a sinister blend of smile and sneer.



## SEVEN

A few leading roles had been assigned well in advance of shooting. Jim Henson would enact Jen, the dying Emperor, and the Ritual-Master. Frank Oz, who initially had wanted to concentrate on directing, finally relented and took on first Aughra and then the Chamberlain. Dave Goelz was given the choice role of the Garthim-Master as well as the major comic-relief character, Fizzgig.

These three men were, of course, seasoned performers. Kathryn Mullen, on the other hand, was relatively inexperienced. Primarily an actress with a smattering of puppetry experience, she came to the Muppets almost by accident at the time of *The Muppet Movie*. Jim Henson had always been determined that a female puppeteer should perform Kira, and both he and Frank Oz detected something in Mullen that made them feel she could handle the role.

Kathryn Mullen with Kira.



"We felt that her puppeteering skills could be developed," Henson explains. "What was more important was that we sensed that she had the acting ability to take on Kira."

Mullen spent some time working in *The Muppet Show's* London shop, helping out on the studio floor when an extra puppeteer was needed. After a while she graduated to full-time performer, all along receiving special coaching from Frank Oz. Working with Oz on Yoda gave her the final baptism by fire that proved she had the stamina that, along with acting ability, would be crucial to anyone taking on a major role in *The Dark Crystal*.

With the start date approaching, however, several parts remained uncast. One obvious pool of talent was provided by *The Muppet Show's* regular cast – people like Steve Whitmire, Louise Gold, and Bob Payne. Even so, close to two dozen additional performers would have to be recruited.

Fortunately, this situation had been anticipated. Shortly after coming to England, Sherry Amott had attended the London Mime Festival, at which she had been favorably impressed by the work of a Swiss

mime, Jean-Pierre Amiel. Amiel joined the Hampstead team and proved of tremendous value, first as an adviser to the shop people – from the perspective of someone who might have to perform inside, say, a Mystic – and second as a recruiter and trainer of the performers needed to supplement the existing Muppet talent. It became his task to evolve a style of movement appropriate to certain characters, to teach this style to his recruits and to train their bodies to achieve this end.

Amiel auditioned dozens of actors, mimes, dancers, athletes, and clowns, and assembled a highly specialized unit to take on the task of performing the three character groups that placed a higher premium on athletic ability and mime skills than on acting and puppetry: the Landstriders, the Mystics, and the Garthim.



Technical wizards Tad Krzanowski (left) and Faz Fazakas in their trailer workshop on the EMI lot.

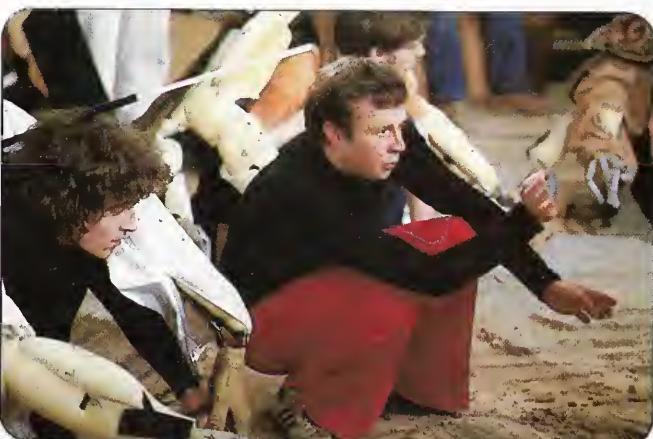


Prior to filming one of the movie's climactic scenes, Kathryn Mullen arranges Kira in Jen's arms.

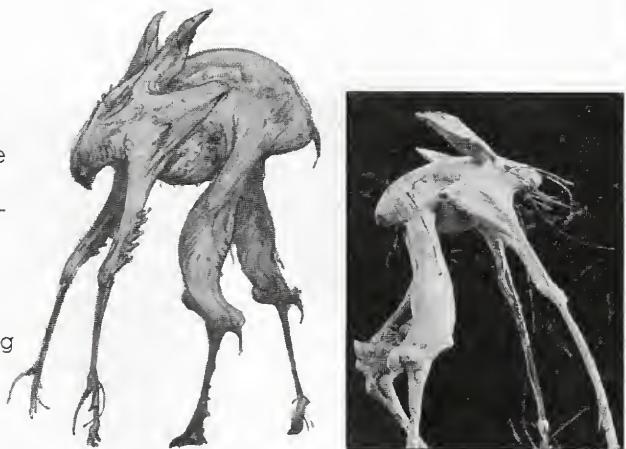
*Kathryn Mullen assists, Dave Goelz as he rehearses a scene in the Skeksis Chamber of Life.*



*Jean-Pierre Amiel demonstrates a movement for the benefit of other mimes.*



The Landstriders – sympathetic creatures with vestigial wings and giraffelike legs – evolved as they did largely because Arniel discovered that one of the men he had hired was an expert stilt walker. Experiments were carried out with twin sets of stilts – one attached to the performer's legs, the other to the arms – and soon several members of the group were able to gallop about a sound stage with remarkable facility. The Landstrider was constructed around this stilt rig, the builders doing a remarkable job of creating the illusion of flesh and sinew.



The skeleton of each Landstrider was built to a body mold of the individual performer. The basic skeleton had a flexible spine, a movable rib cage, and a fully articulated pelvis. Artificial tendons were stretched from the pelvis to the leg molds at the top of each carbon fiber stilt. Thin but strong fabric was stretched over the fabric so that when the Landstrider moved, muscles seemed to ripple beneath its skin. The illusion of life was enhanced by the pair of radio-controlled eyes with which each creature was equipped.



*The Landstrider concept developed from the fact that Robbie Barnett – one of the performers recruited by Jean-Pierre Amiel – was a circus artist with stilt walking experience. Experiments were conducted to see how practical it was for*

*performers to "gallop" on stilts. These proved successful, and Valerie Charlton took on the task of camouflaging "jockey" and stilts alike with synthetic bodies and skin that would bring the strange Landstriders to convincing life on screen.*



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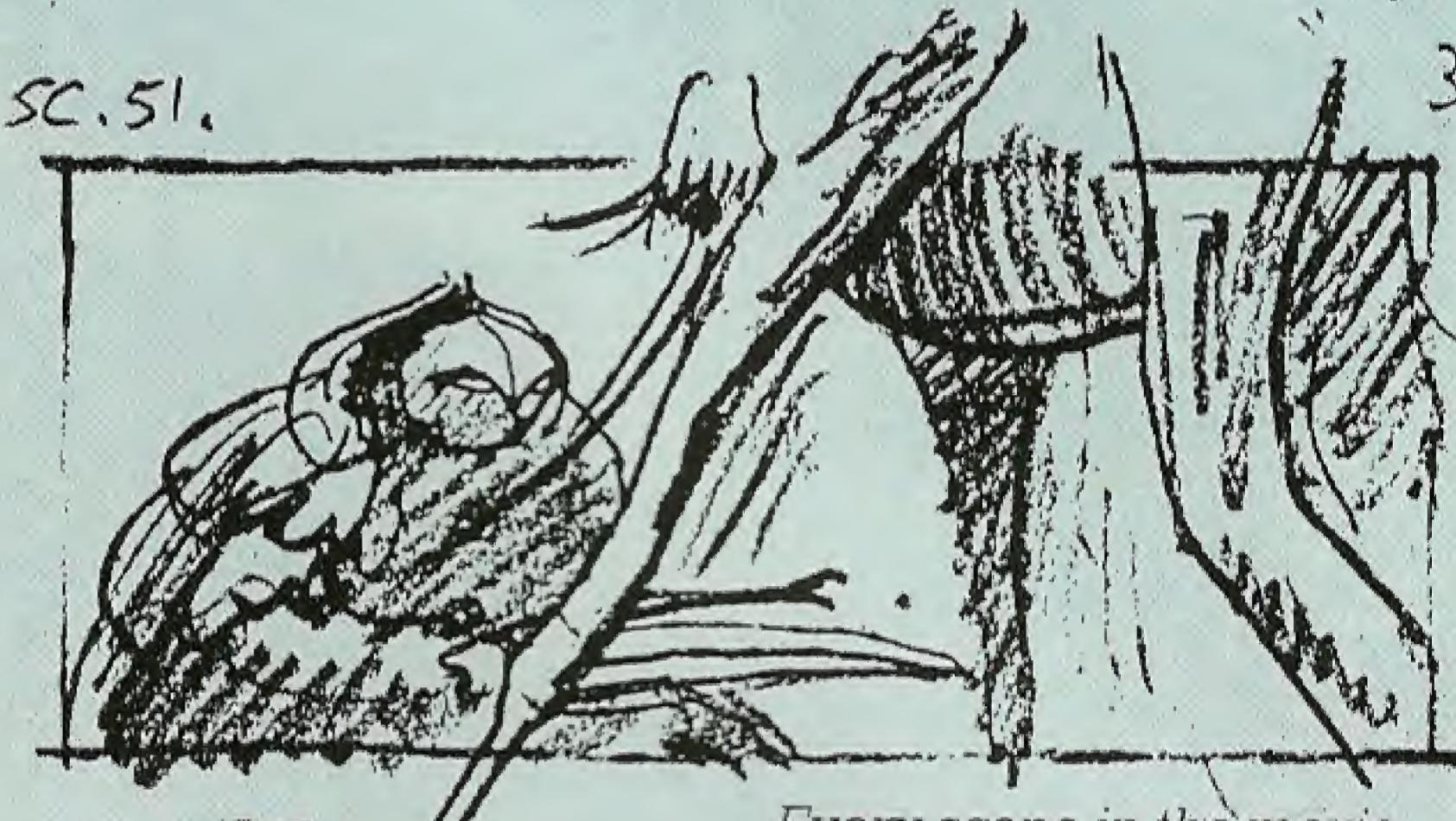
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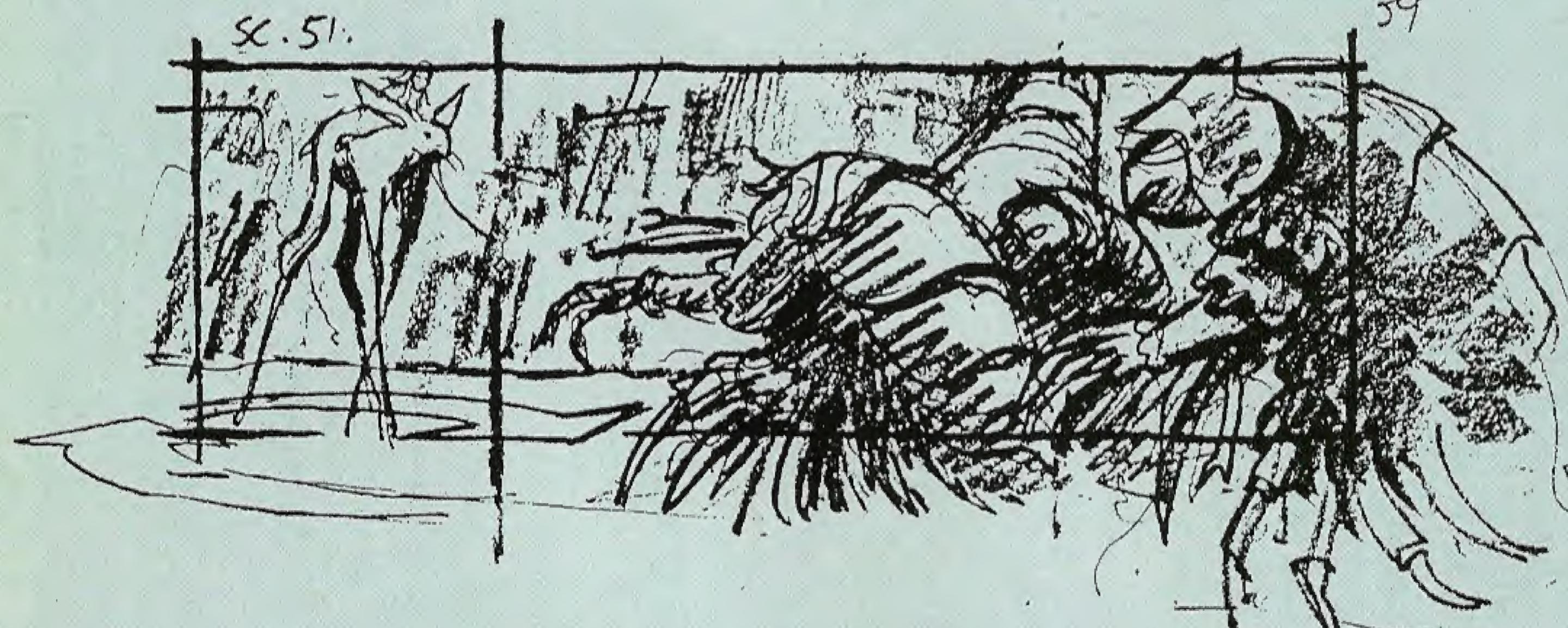


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41



*Every scene in the movie was story-boarded so that it could be clearly visualized before the performers went before the cameras. These story boards by Bill Stallion illustrate the battle between Garthim and Landstriders outside the Skeksis castle. The actual battle required dozens of elaborate set-ups and entailed weeks of intermittent shooting on the EMI back lot. The original schedule was frequently disrupted by the fickle English climate.*



The Mystics were equally sophisticated and demanding to perform. Within these characters the performers were bent over into such awkward positions – backs and legs aching beneath the weight of the costumes – that it would have been impossible for a Mystic to move at anything other than the studied, wearisome gait that was required. For certain scenes, special, two-man Mystic rigs had to be built to enable one person to operate the head while another manipulated the body.

Mystic Valley was the first set to be constructed, and the Mystics were the first character group to go into action once principal photography began. Instead of being screened at the studio, a few select scenes from the first week's rushes were taken to the Leicester Square Cinema – one of England's larger picture palaces – and the producers and directors, their immediate families, and a few members of the workshop gathered there late that night to see the results. A collective sigh of relief was almost audible as the Mystics lumbered on, otherworldly creatures in a fabulous landscape. Brian Froud's drawings had come to life.

And the Mystics worked. Even on this gigantic screen they were totally convincing, everything that had been hoped for. Perhaps for the first time everyone involved realized that *The Dark Crystal* was more than just a dream.

*Filming the scene in which the Mystics performed final rights for their departed Master demanded elaborate choreography, with Jean-Pierre Amiel rehearsing his mimes until they were letter perfect.*



*UrAc, the Scribe, was conceived as the guardian of the Mystic code, the historian of Mystic thought, and the maker of prayer sticks. All this was symbolically represented in his costume and reflected by the "thought spirals" that crease his face.*





## EIGHT

In the weeks that followed, the cast and crew settled into a working routine that tended to be rather slow and deliberate. One sequence alone – the destruction of the Crystal Chamber – took five weeks to shoot.

"In a regular filmmaking situation," Jim Henson explains, "you shoot a 'master,' which gives you a basic version of all the action of a given scene from A to Z. With a film like *The Dark Crystal*, you can't shoot a continuous master because of the complexity of the setups. To give just a single example, you have to be concerned all the time about keeping the cable crews out of shot. What we have to do is break the master into several parts – sometimes many parts – and then shoot the remaining closeups and inserts. Some of the inserts can, of course, be picked up by the second unit, but it's still a slow process – though, fortunately, some parts have gone relatively fast. The scenes with the Mystics, for instance, went quickly because we had to be concerned with the extreme discomfort of the performers inside those rigs. The Pod People feast, on the other hand, ran long because we were getting so much good material that we wanted more."

"This is filmmaking as an exercise in logistics," Frank Oz adds. "There are so many things to consider in the planning of every shot. What floor panels must be removed to provide room for the cable crew? How does that affect the camera angle? Which performers need special platforms to adjust their height? More than in an ordinary movie, this has to be a collaborative effort, and we rely very heavily on people like Ossie Morris and Dusty Symonds."

As for the question of co-directing, Oz did not find that this presented any special difficulty. "Jim and I have worked together for so long that we can practically read each other's minds. Of course, we do disagree about some things; and if one of us has especially strong feelings, he usually gets his way. More frequently, though, we'll take a middle path, and that often works out better."

Most of the crew had worked on *The Great Muppet Caper* and so were familiar with the technical problems involved. Even so they were not prepared for the full complexity of shooting *The Dark Crystal*.

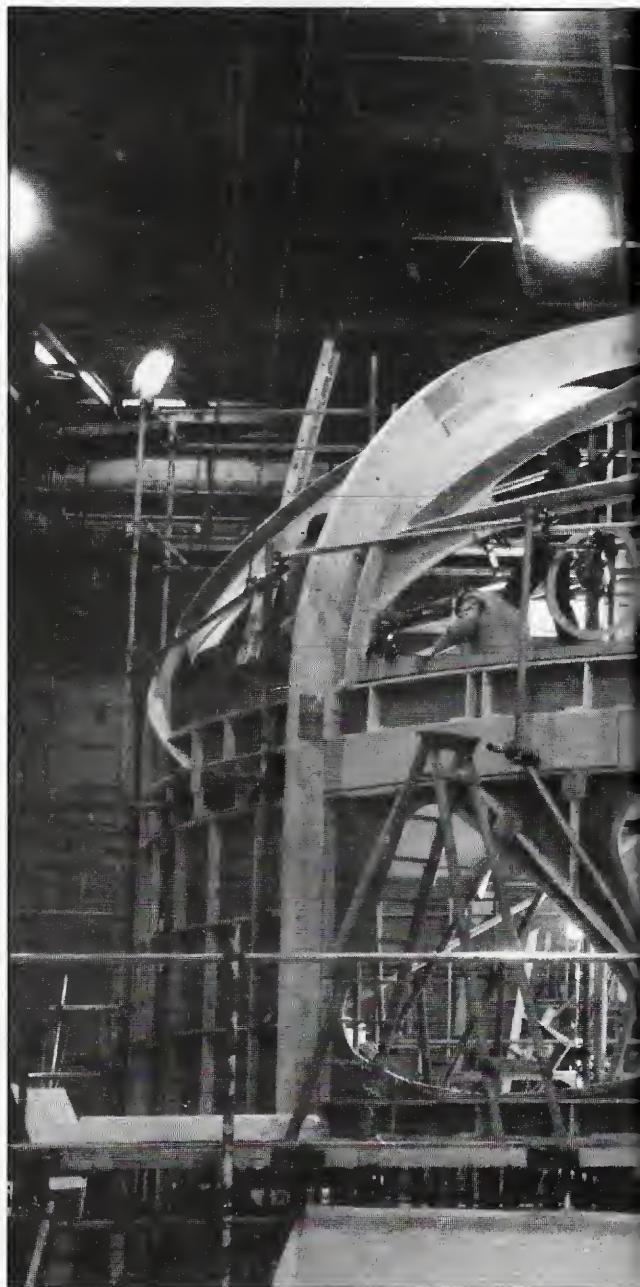
The scale and intricacy of the production can be gauged during the course of a stroll around the studio on a Monday morning in August 1981. The picture is in the seventy-ninth day of production, and principal photography will continue for at least another four weeks.

The first unit, under the direction of Jim Henson and Frank Oz, is on Stage 4, which is almost filled with a gigantic set representing an underground cavern – the Chamber of Life – that serves as the Skeksis' laboratory where the Scientist conducts his experiments. The cavern is filled with what the script describes as cages with maimed and tortured creatures of all kinds inside. Because this laboratory contains a deep pit, it is built on a platform that stands about nine feet above the floor and that is reached by a flight of stairs. The cramped set and the entire sound stage are swarming with performers, prop men, carpenters, electricians, and specialists of various kinds. (The call sheet requests catering breaks for eighty people.) Up on the platform, wardrobe assistants are making repairs to the costume of the Garthim-Master, which will be needed later in the day. Dave Goelz is seated nearby, chatting with his cable crew. A camera is set up in an entrance to the cave, and

alongside it, Jim Henson, Frank Oz, and Ossie Morris are discussing the lighting for the next scene.

In front of the camera, Steve Whitmire as the Scientist and Kathryn Mullen as Kira are waiting for direction. Bob Payne is in a kind of crow's nest, built above the set, from which he will control a batlike creature that is scheduled to swoop through the scene. Other performers are standing by with slaves on their arms, and Louise Gold is seated just out of camera range with the radio transmitter that controls Kira's secondary functions.

Frank Oz tells Kathryn Mullen what reaction he wants from Kira, and Dusty Symonds calls for rehearsal lights. In this scene, the Scientist straps Kira into a chair before beginning to drain her of her essence, or life-force. On screen this will look simple enough, but it requires deft coordination among Mullen, Whitmire, and Whitmire's cable crew. They rehearse over and over again. All eyes are fixed on the television monitors placed around the set. Finally, everyone is



ready to shoot, and Symonds calls for silence.

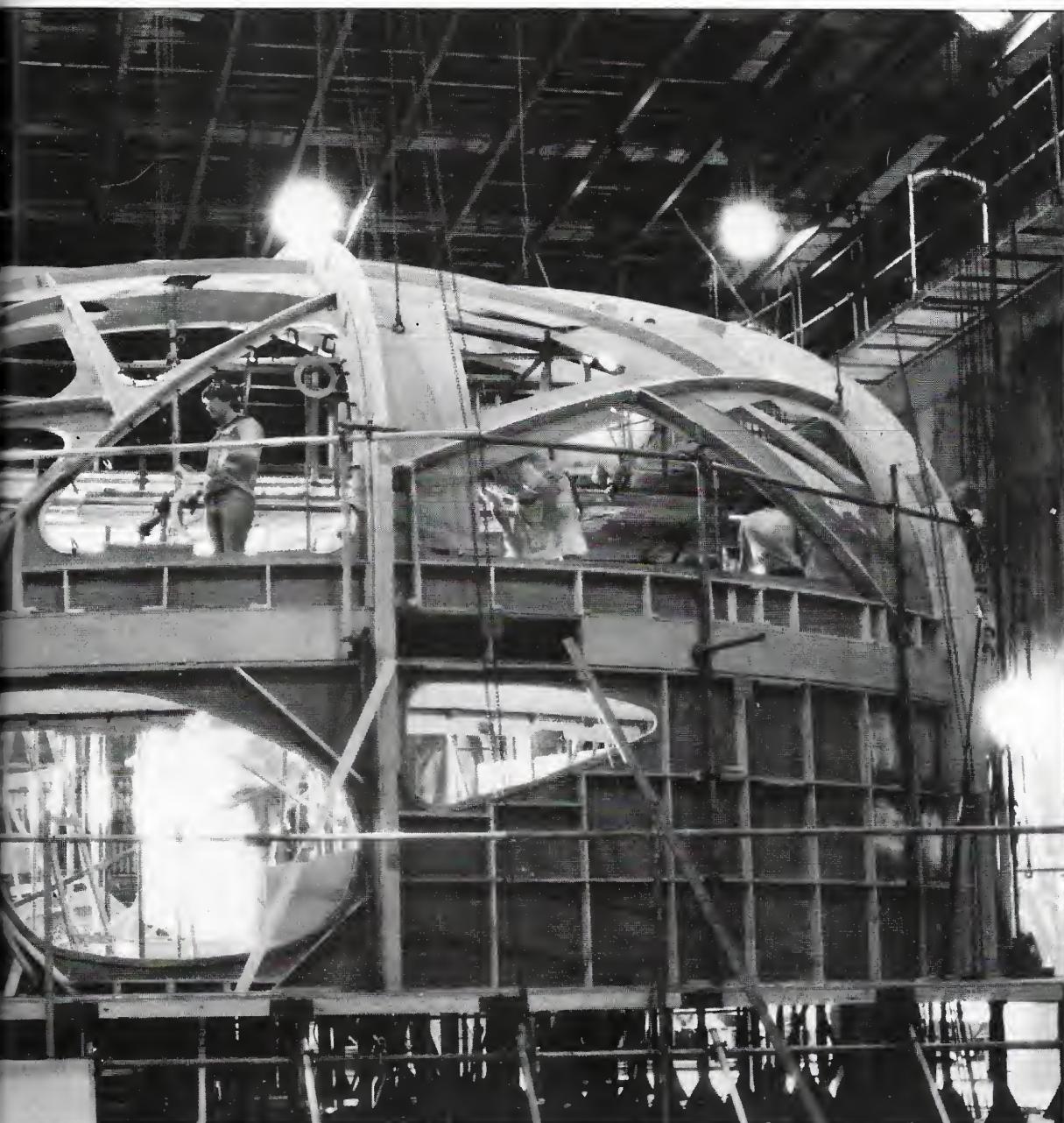
Meanwhile, on the back lot, Gary Kurtz is directing action shots with the second unit for the battle between the Garthim and the Landstriders that was shot a week or so earlier. He is using two cameras – one on the floor of the set, the other installed on top of a scaffolding tower. It is a warm day, but there are some clouds about, which may give the cameraman a certain amount of trouble. A member of the camera crew keeps a constant eye on the sky to warn of impending changes of light.

On Stage 9, about one hundred yards from this outdoor set, a third unit, consisting of some two dozen people, is setting up to shoot a model of the Skeksis castle for the storm sequence that opens the picture. Meantime, on Stage 3, the set that has already been used as the Crystal Chamber and the Council Chamber is being transformed into the Skeksis' banquet hall.

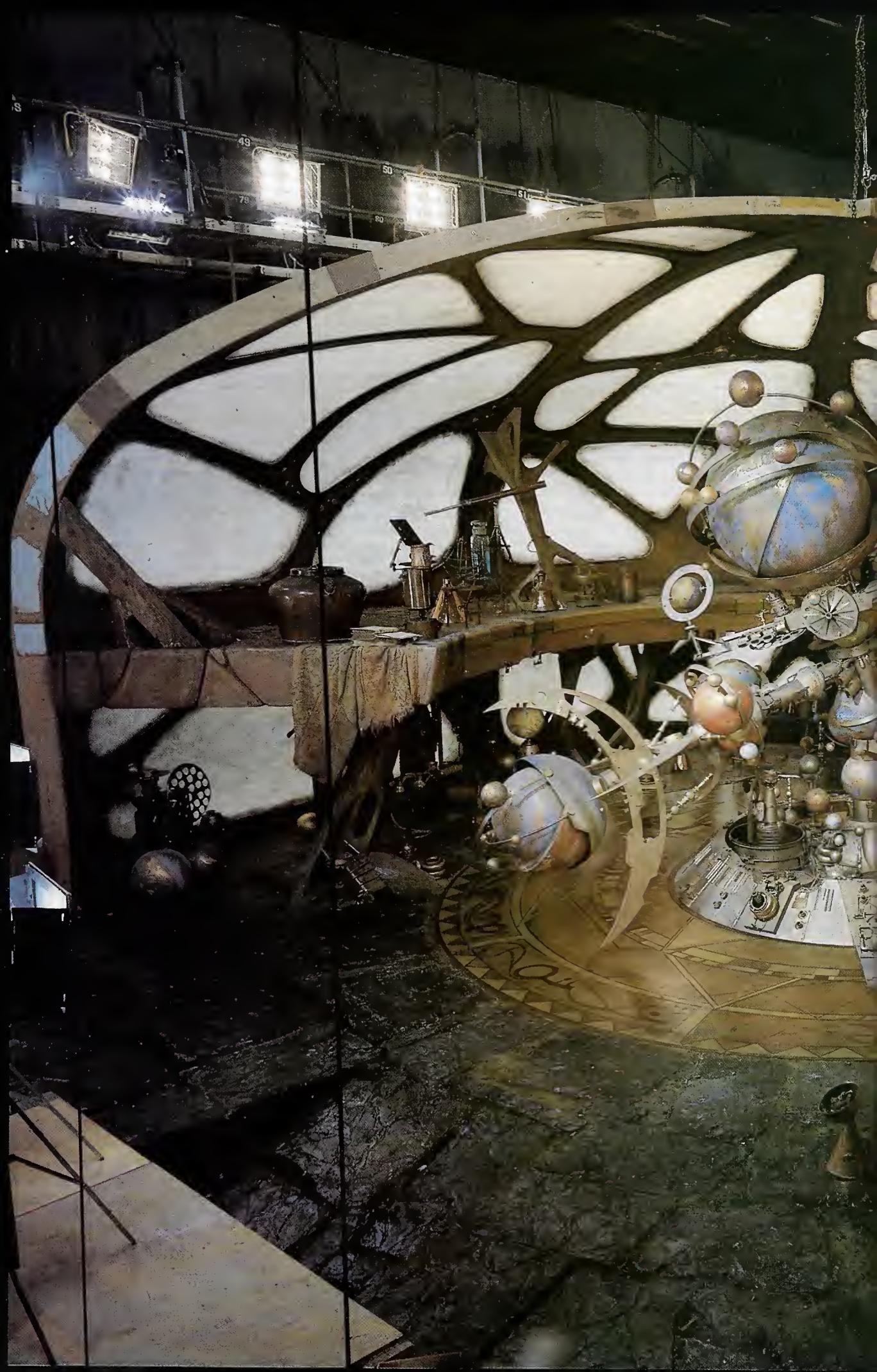
Next door, on Stage 2, Aughra's orrery – a huge apparatus for representing the motions of the planets

in this solar system – is taking shape and shows clear signs of becoming one of the movie's most spectacular sets. Carpenters and painters climb all over it, and a forklift truck brings in sections of a balcony. Elsewhere, on Stage 8, the Gelfling ruins – where the second unit has work to do – is still standing, deserted for the moment, and throughout the studio a visitor comes upon remains of sets that have been struck. Rocks from Mystic Valley and Aughra's mountain fade in the sunlight outside Stage 5. In an alley is a little clump of exotic manmade vegetation, and on the back lot, more examples of this same vegetation mingle with English trees that have been sprayed bronze and purple to represent the Landstriders' natural habitat.

An exhaustive tour would take in production offices, cutting rooms, and workshops full of Pod People and Skeksis. At the end of it all, a visitor might return to Stage 4 and find Kathryn Mullen and Steve Whitmire still struggling with the same shot that was being set up hours earlier.

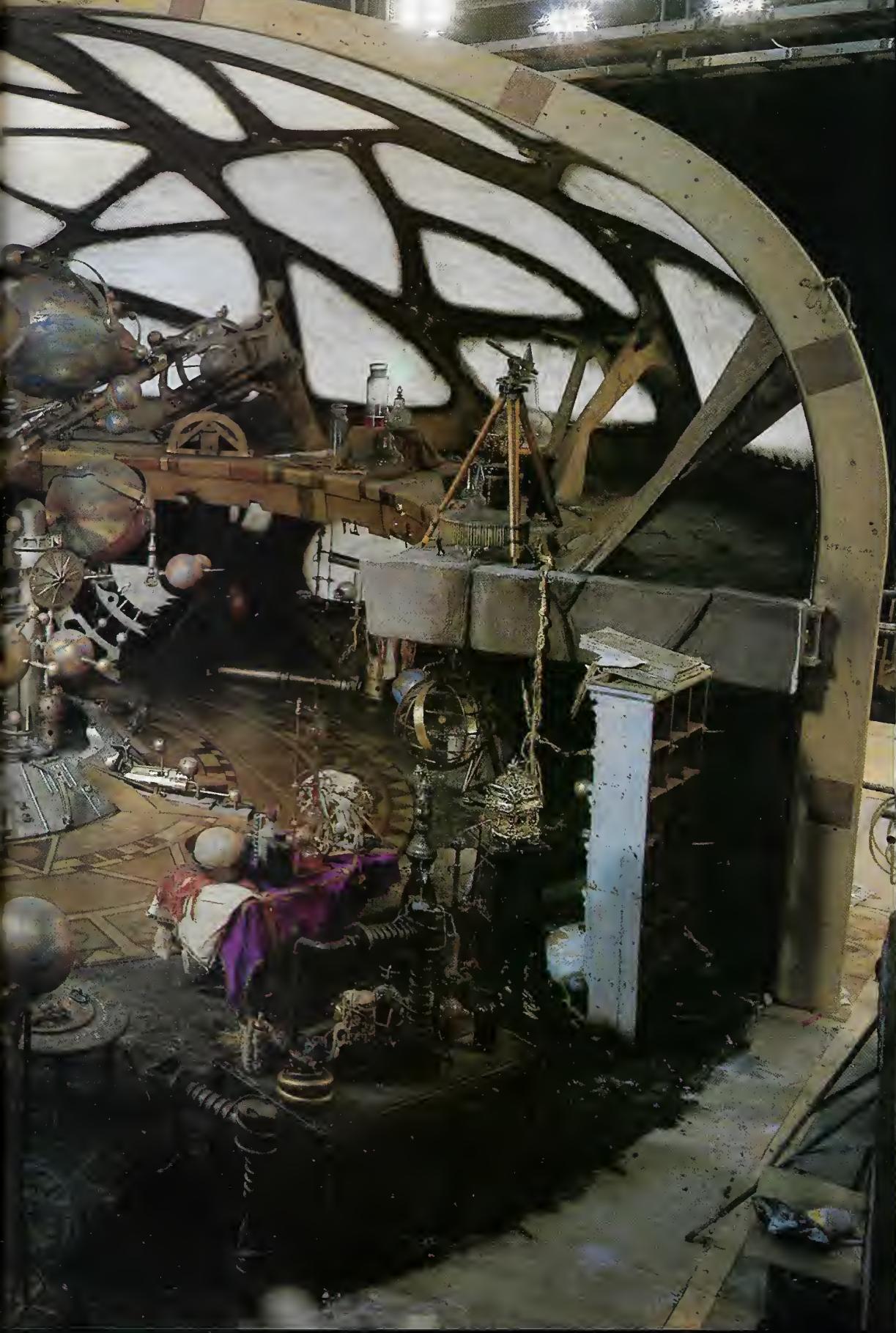


*Aughra's observatory was one of the most elaborate and spectacular sets built for The Dark Crystal. Its dome housed a huge and ornate orrery that, when in motion, filled the set with swirling spheres and half moon blades.*



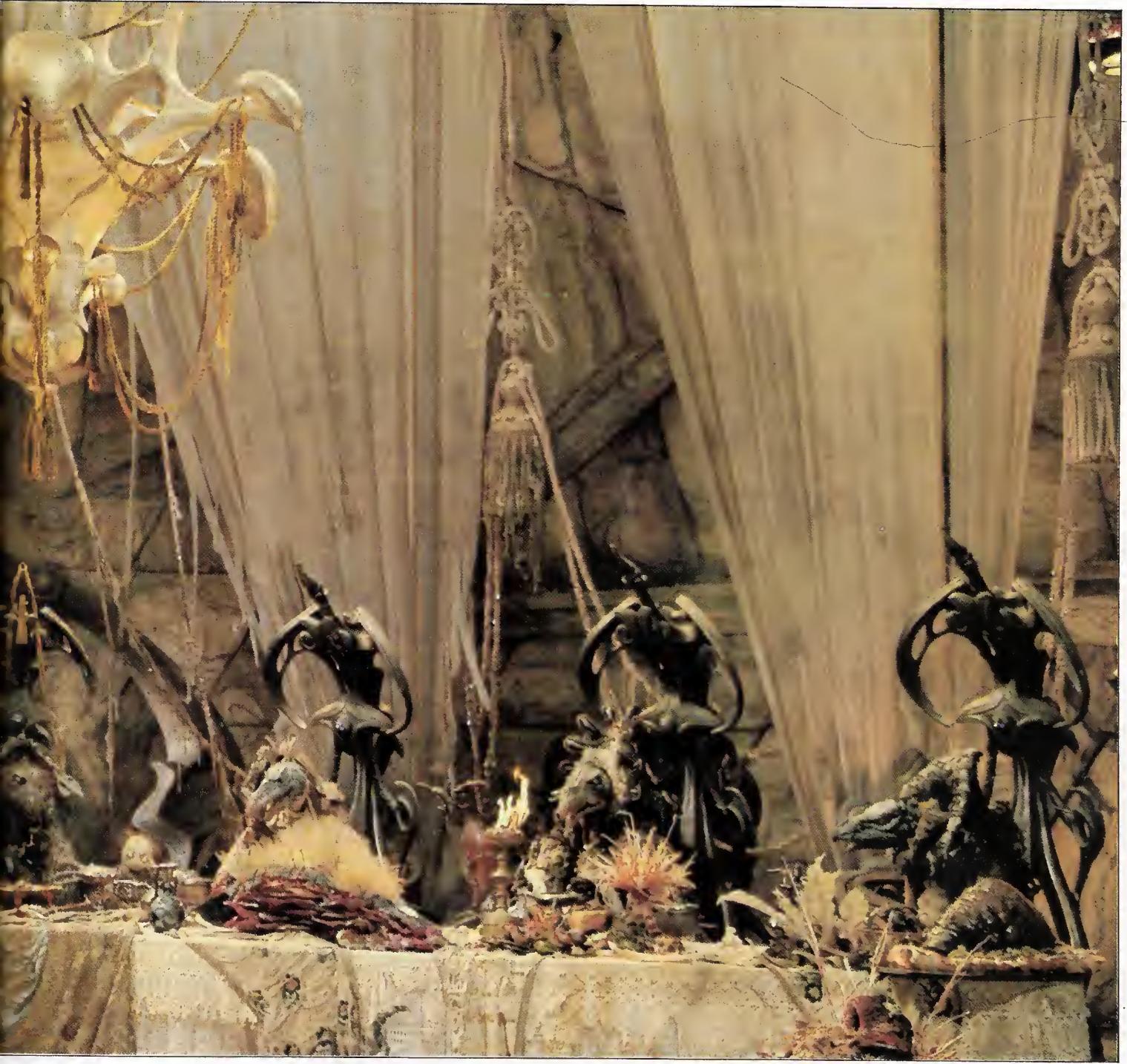


Aughra's orrery



*The Banquet Chamber was a typical Skeksis environment, baroque and opulent, but also dank and dusty. With the movie running over schedule, the banquet scene was shot faster than most others, with the performers having little time to consider their work between takes. Despite this it comes off as one of the most amusing scenes in the film.*





Harry Lange's drawing  
for the Banquet  
Chamber.

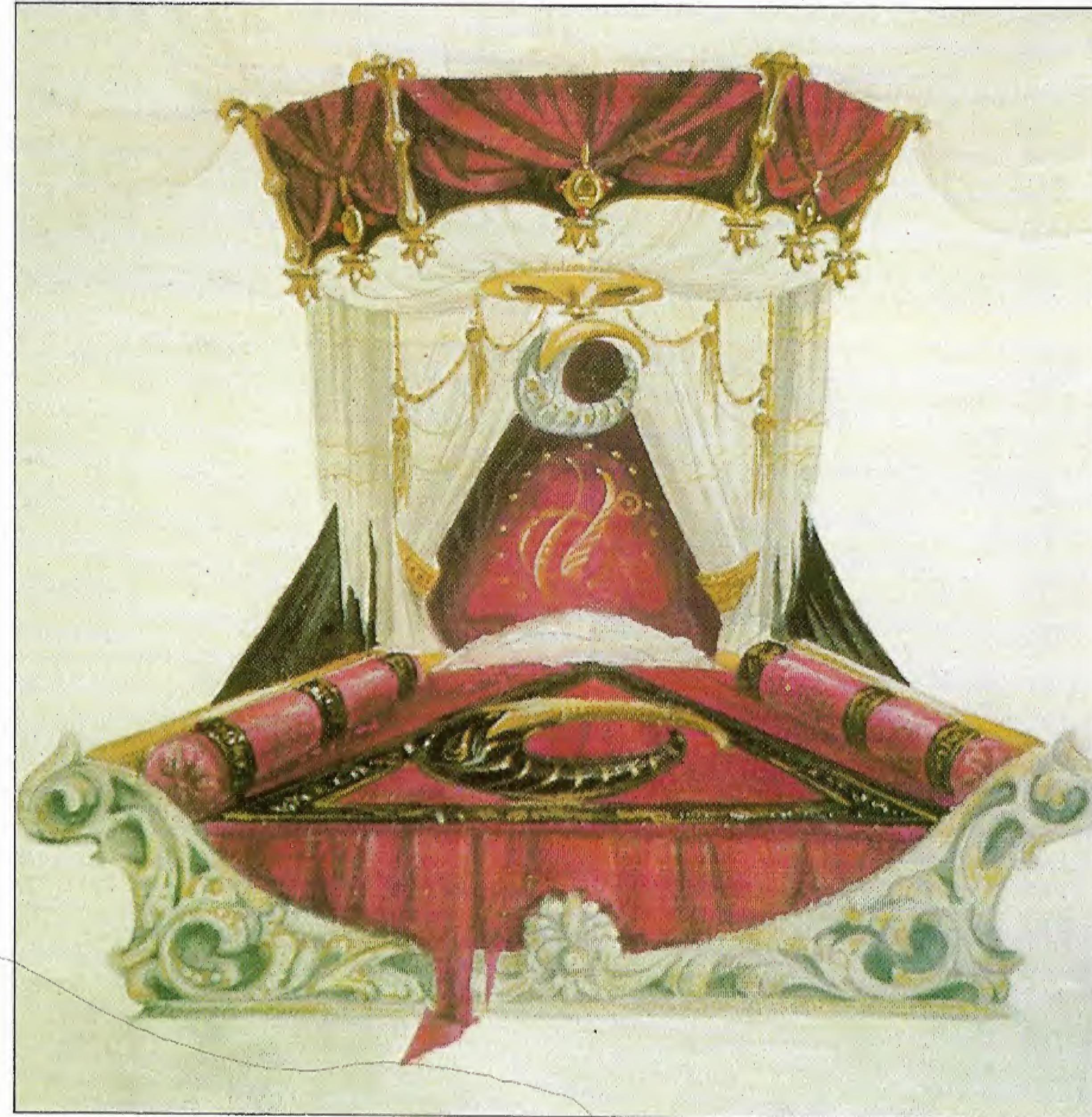


*Left, a version of the conjunction symbol that was incorporated into the headboard of the Emperor's bed.*

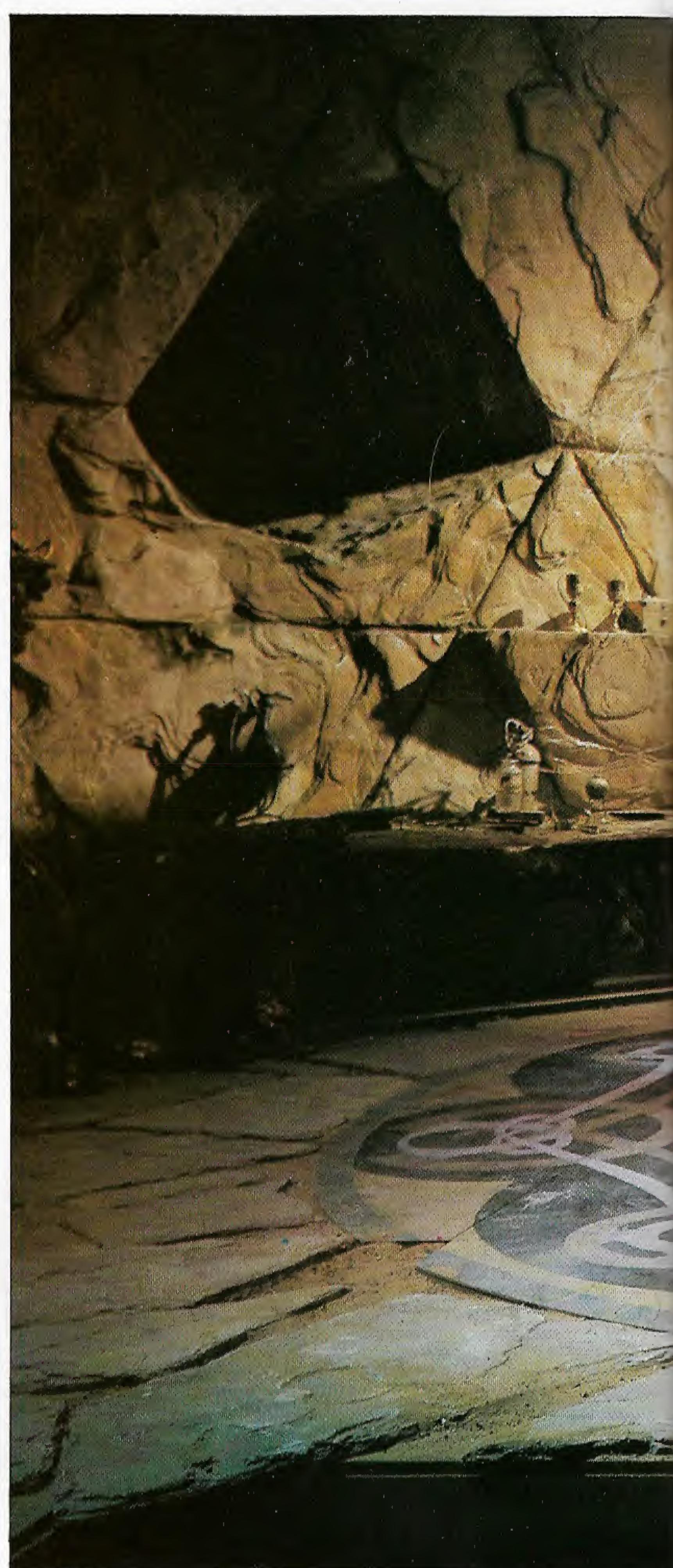
*Right, Harry Lange's design for the entrance to the Bed Chamber.*



*Harry Lange's drawing for the Emperor's bed*



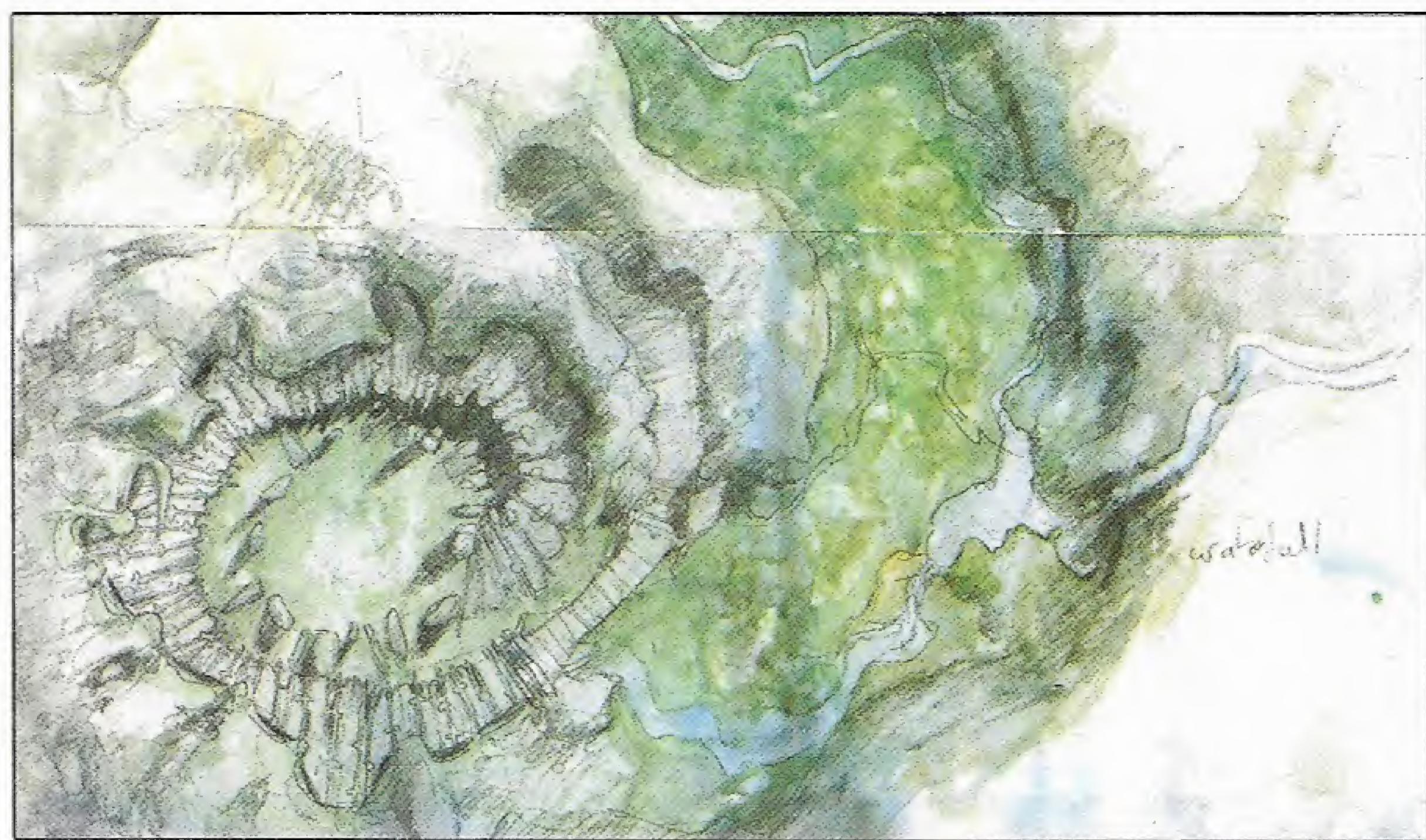
*Like all sets for The Dark Crystal, the Bed Chamber was constructed on platforms with a crawl space underneath where performers could crouch. They then operated their characters through openings in the platform above by removing the replaceable panels with which the platform was fitted. For this scene, the designers evoked a sense of decay with the aid of musty looking props and careful lighting.*





Artist Roy Carnon's  
production painting for  
the Bed Chamber scene.





Brian Froud's aerial view of Mystic Valley.



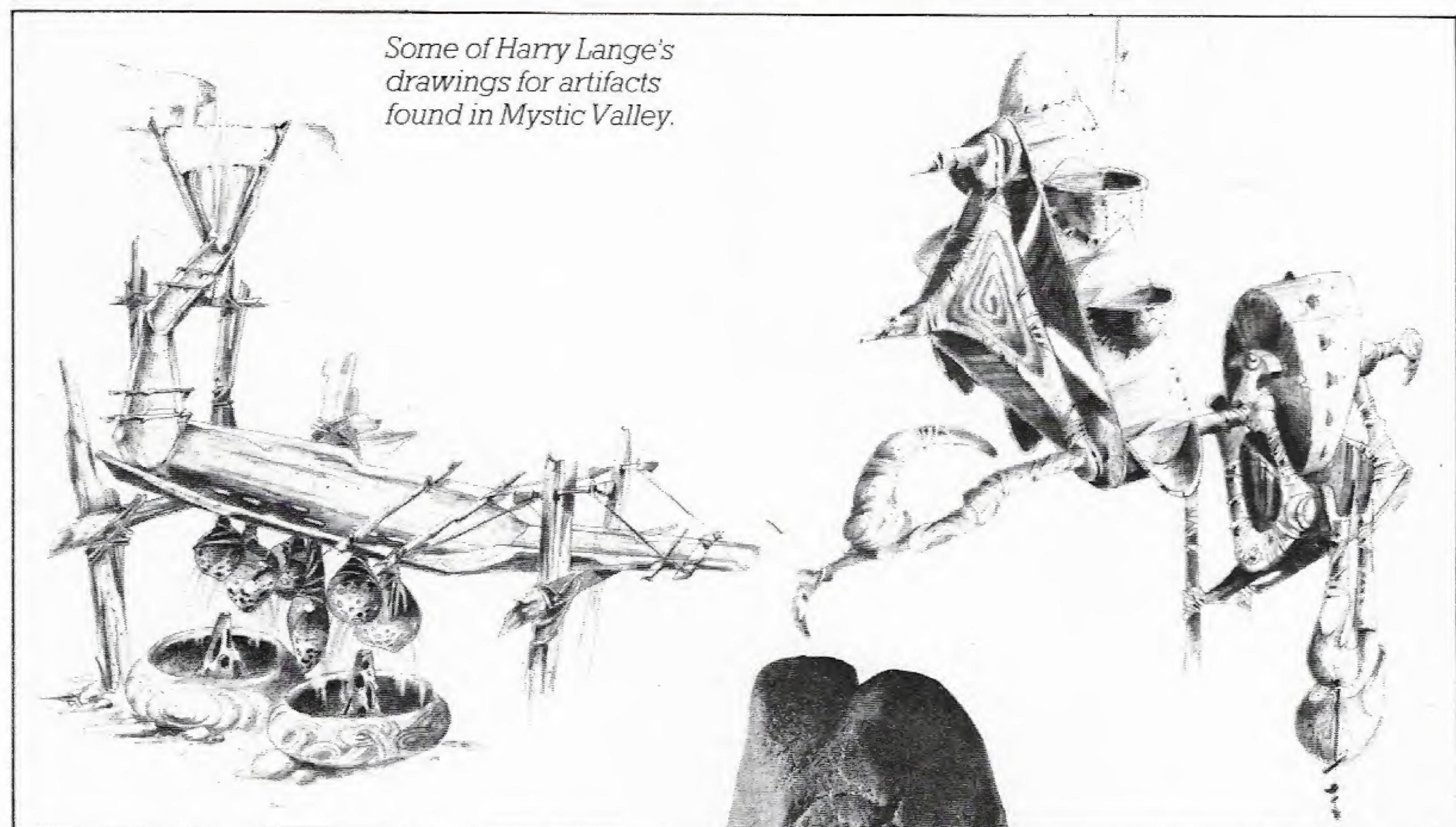
An impression of Mystic Valley by Roy Carnon.

Right, the Mystic Valley set under construction.

Below right, the completed set seen from approximately the same angle.

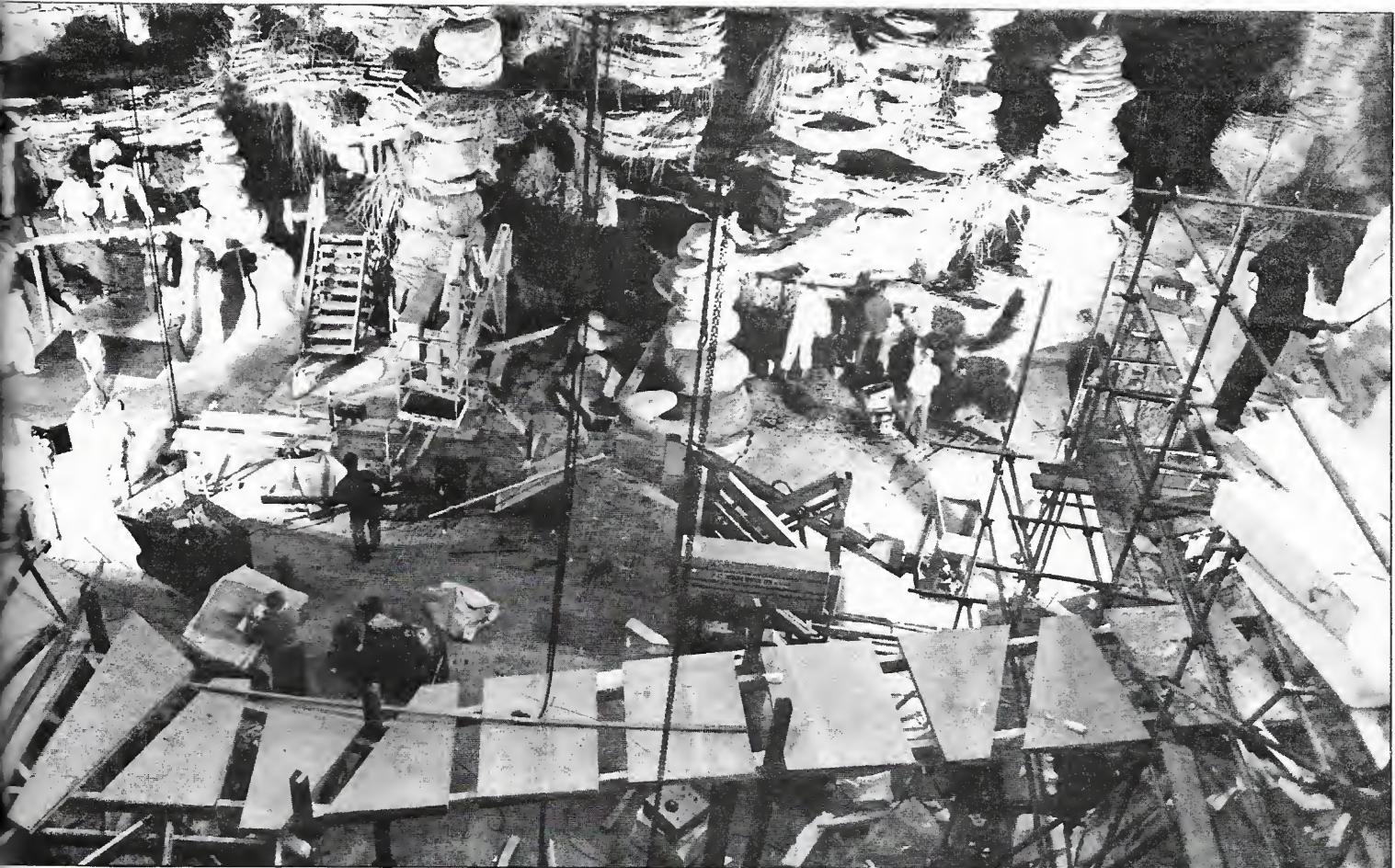


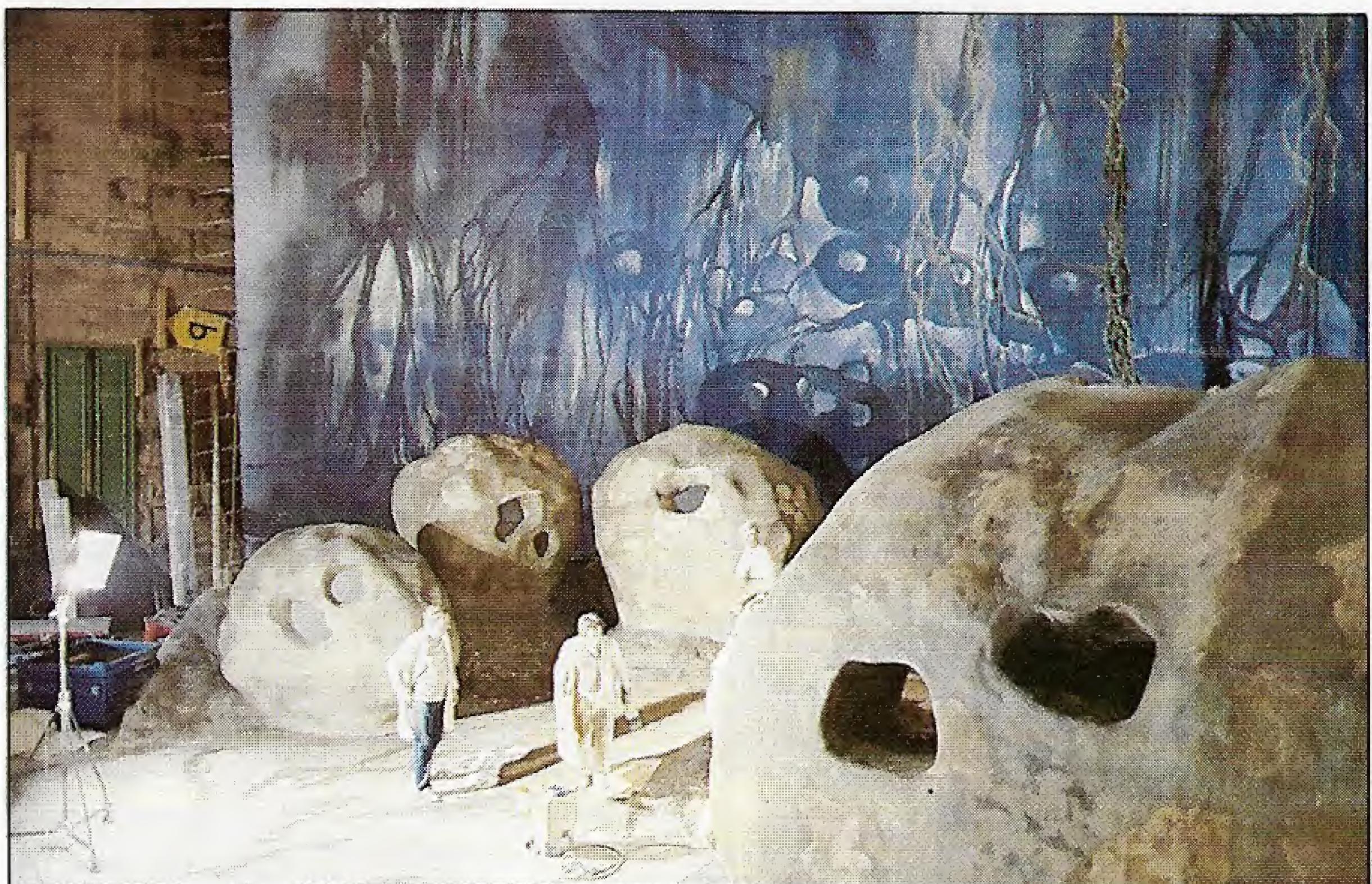
Some of Harry Lange's drawings for artifacts found in Mystic Valley.



One of the standing stones of Mystic Valley. The runic inscriptions that cover it have been eroded by time.



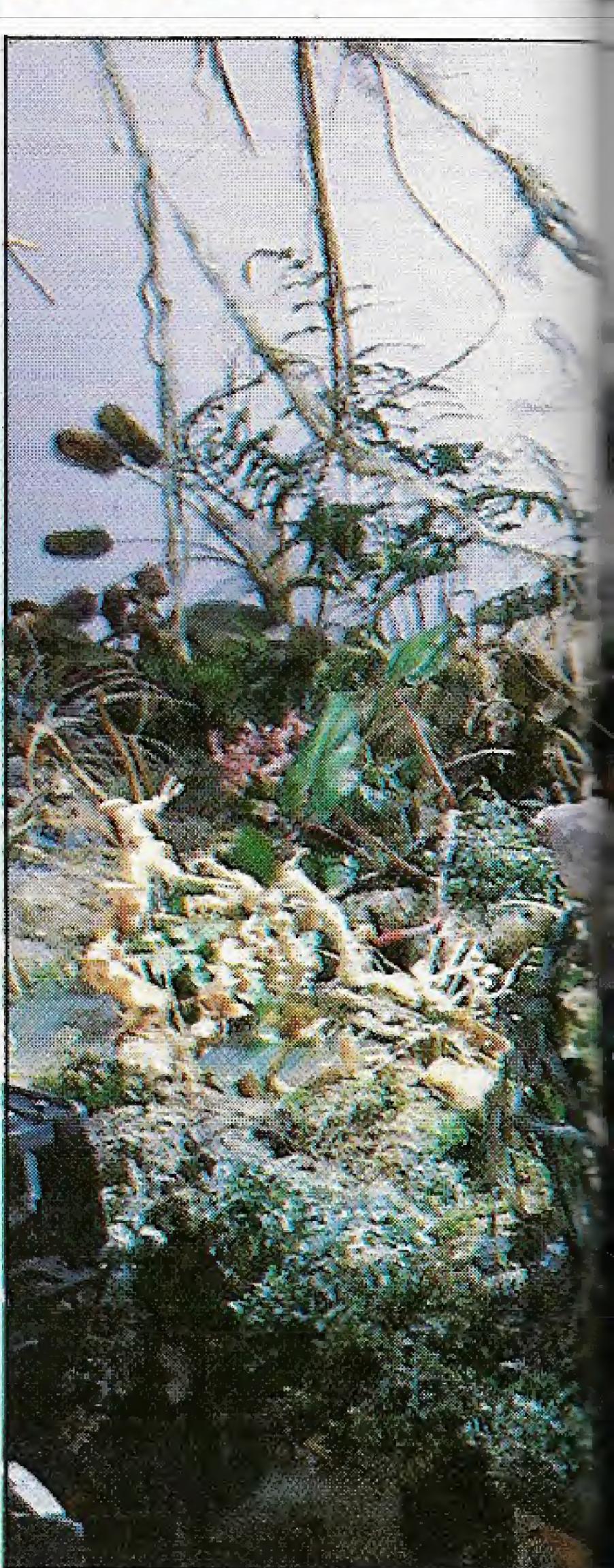




The Pod Village set under construction (top) and ready for shooting (center). In *The Dark Crystal*, the Pod culture is based entirely on giant gourds that provide the Pod People with both nourishment and shelter.

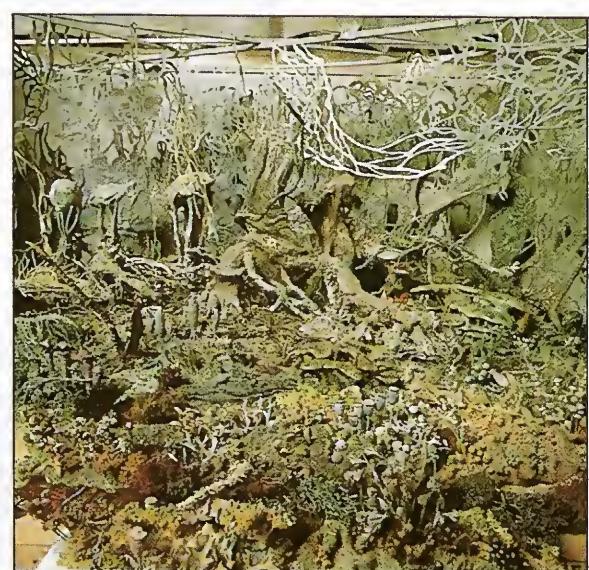


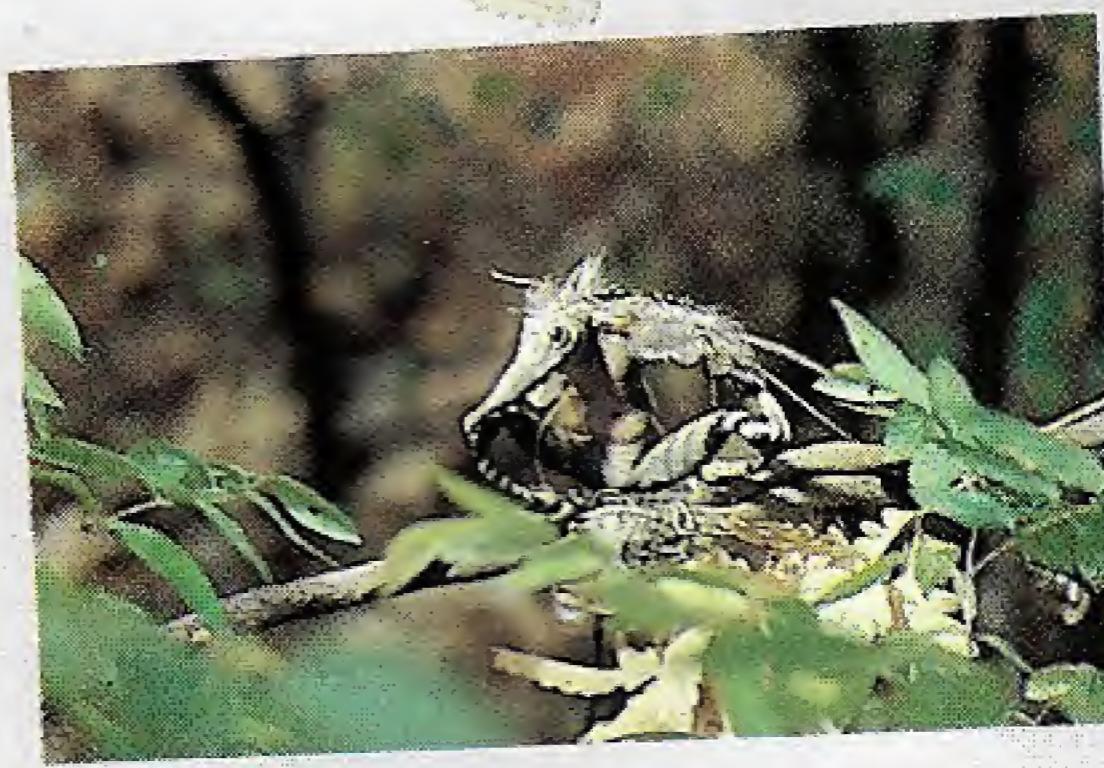
In one of the EMI workshops, vines made from rope, paper, fabric, and latex were slung from beams, awaiting transportation to the set.

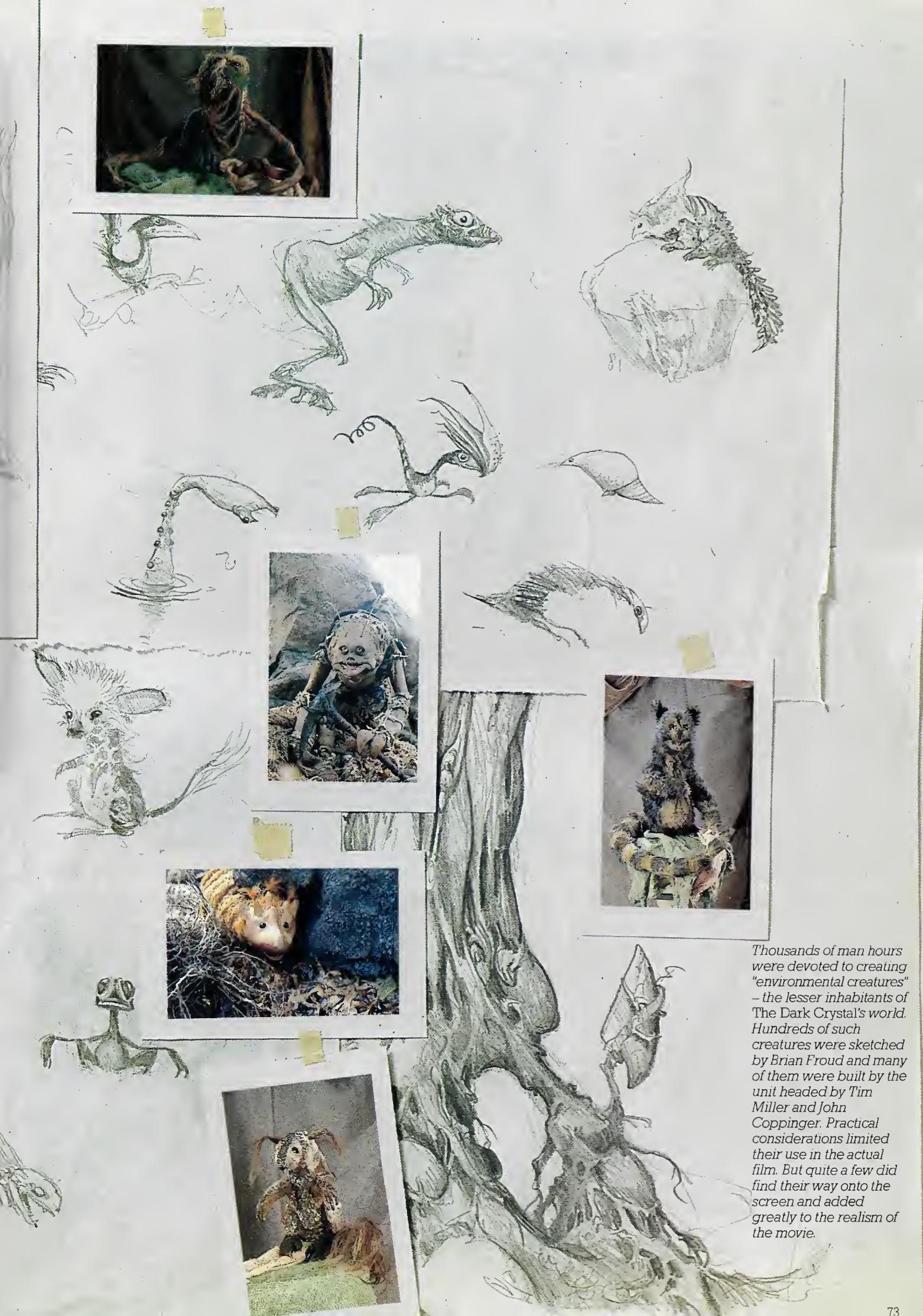




The swamp where Jen meets Kira was designed by Malcolm Stone and John Coppinger. Coppinger, a consultant from London's Natural History Museum, contributed many ideas for plausible yet exotic forms of flora and fauna. During filming, the temperature among the lights above the set often reached 115°F.







Thousands of man hours were devoted to creating "environmental creatures" – the lesser inhabitants of *The Dark Crystal's* world. Hundreds of such creatures were sketched by Brian Froud and many of them were built by the unit headed by Tim Miller and John Coppinger. Practical considerations limited their use in the actual film. But quite a few did find their way onto the screen and added greatly to the realism of the movie.

*The Pod People's feast was one of the liveliest scenes in the movie. But as often happens, while thousands of feet of film were shot, only a tiny fraction of it found its way into the finished film.*



*Prototype Pod People with sculpted foam bodies.*



*An early version of a Pod person, ready for a camera test.*



*Prototype Pod People*



A captured Pod Person is  
manacled to a chair in  
the Chamber of Life.



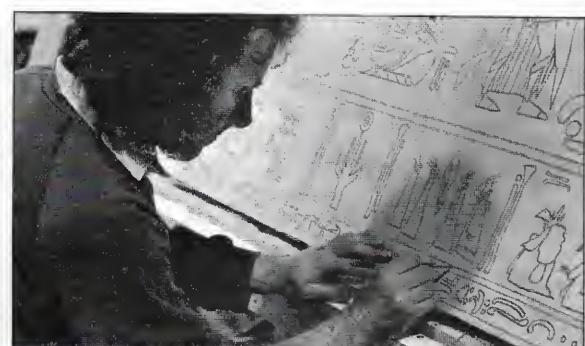
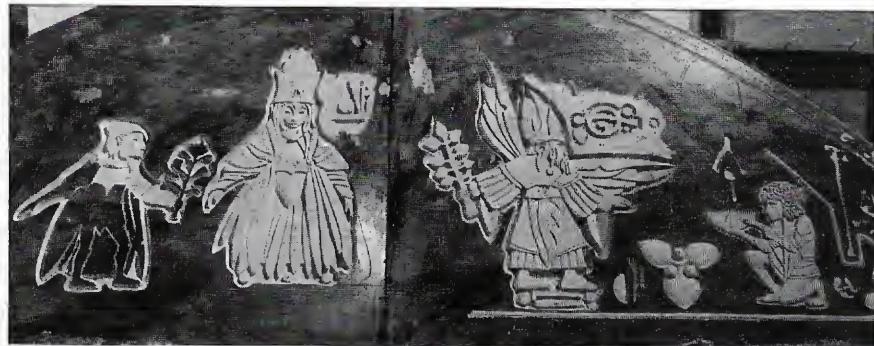
Pod slaves in the Skeksis  
castle. Drained of the life  
essence, the eyes of the  
slaves become milky and  
opaque.

*In the Gelfling ruins, Jen and Kira discover the Wall of Destiny, a stone structure covered with low reliefs that tell, in pictograms and hieroglyphs, the history and destiny of their race.*



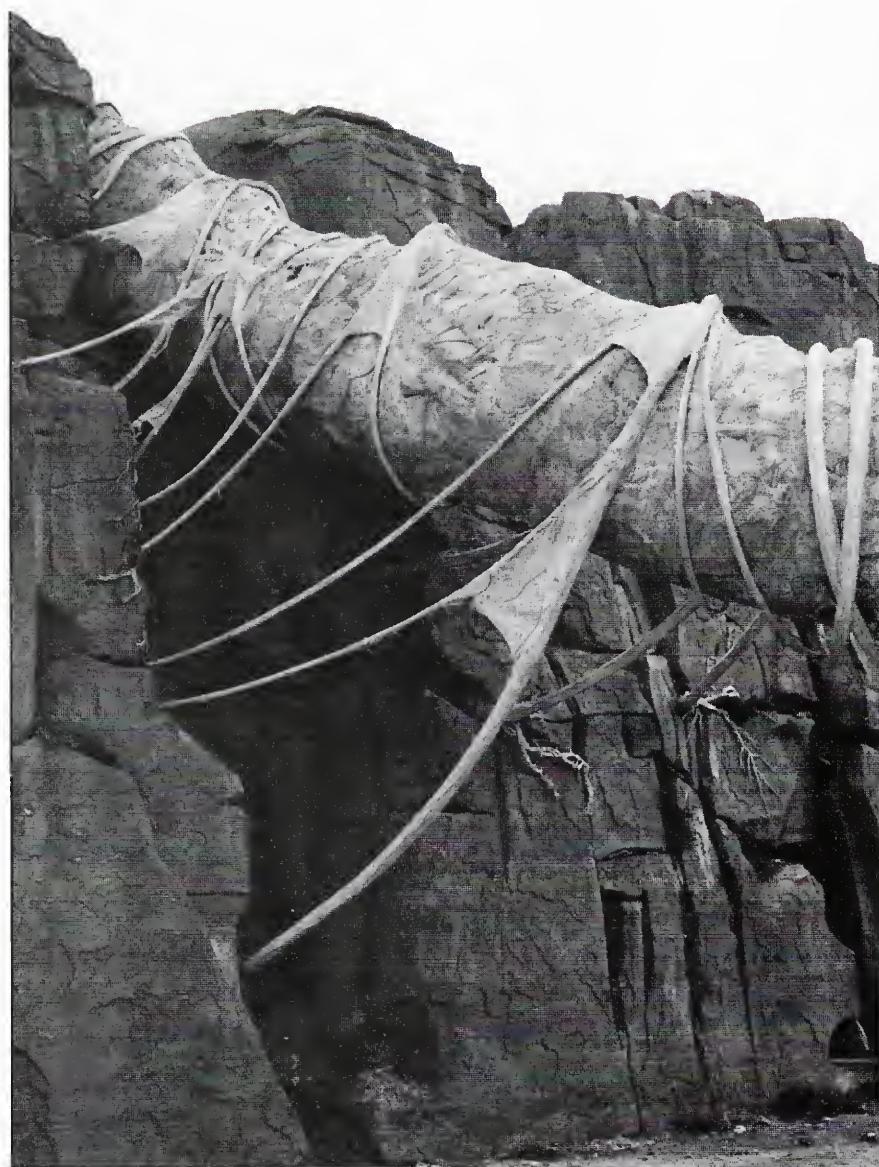
*First drawn by Brian Froud, then carved by a team of craftsmen, these reliefs were finally given an artificial patina of age and dressed with vines and shrubs to convey the impression of great antiquity.*



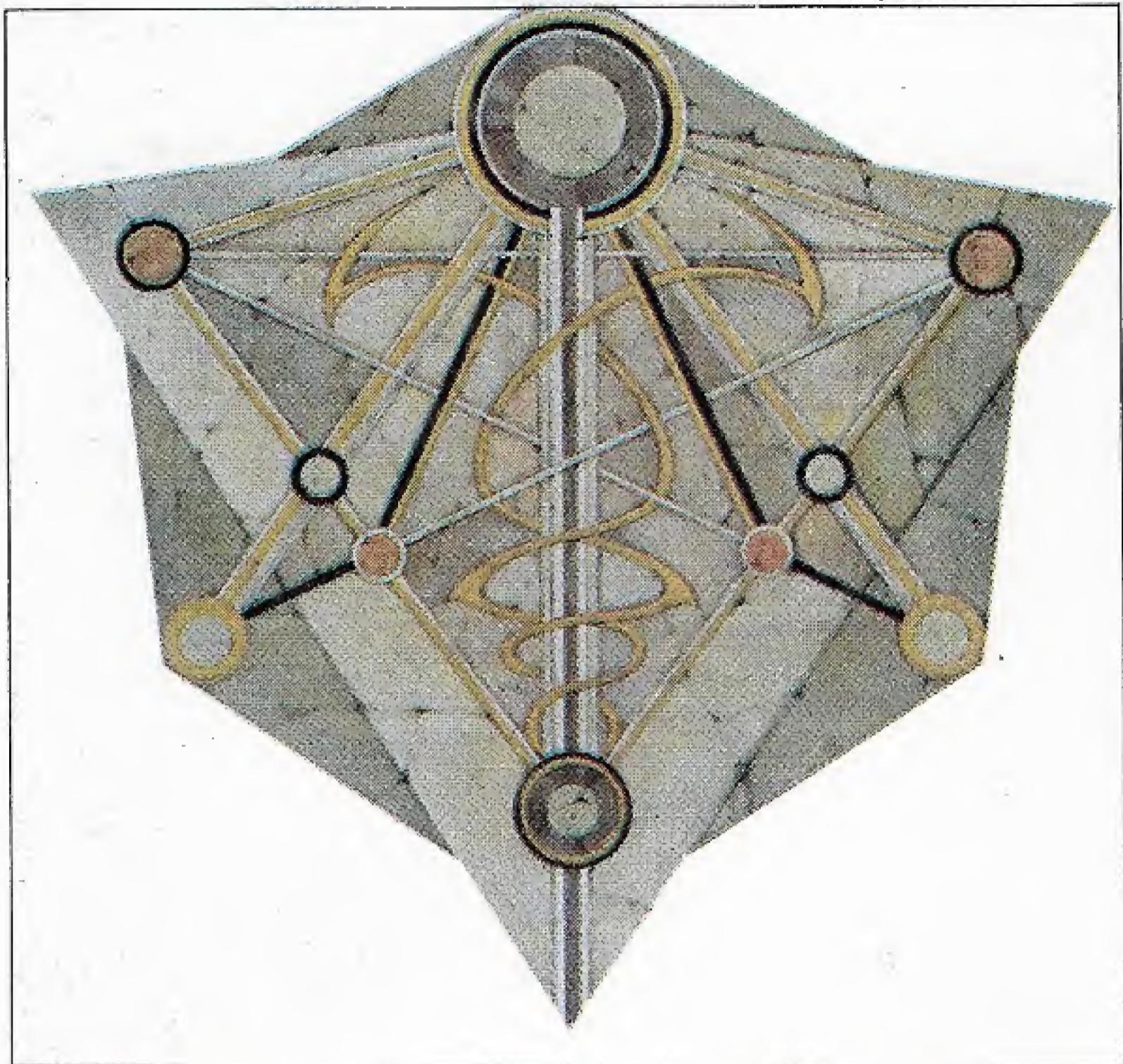




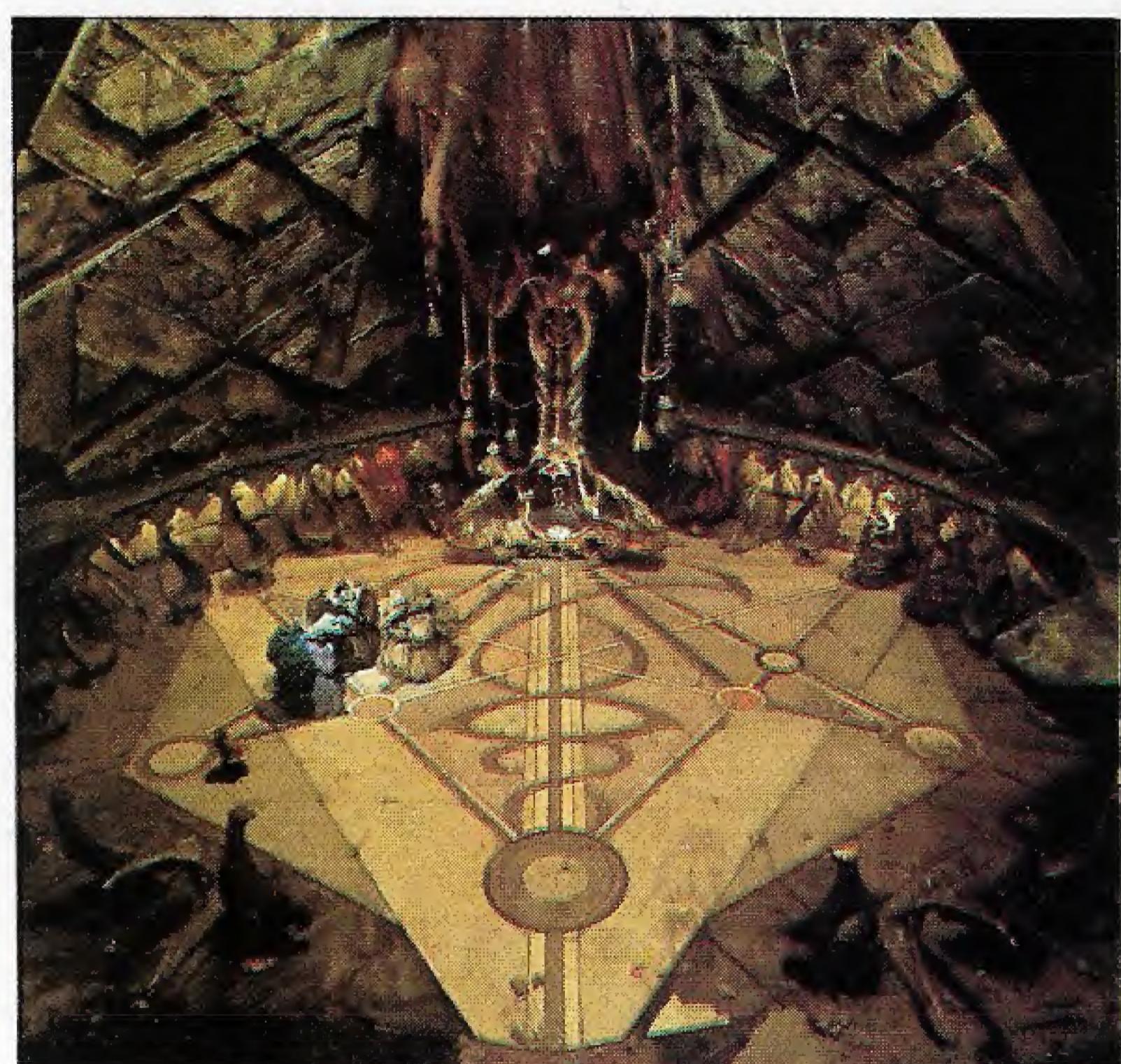
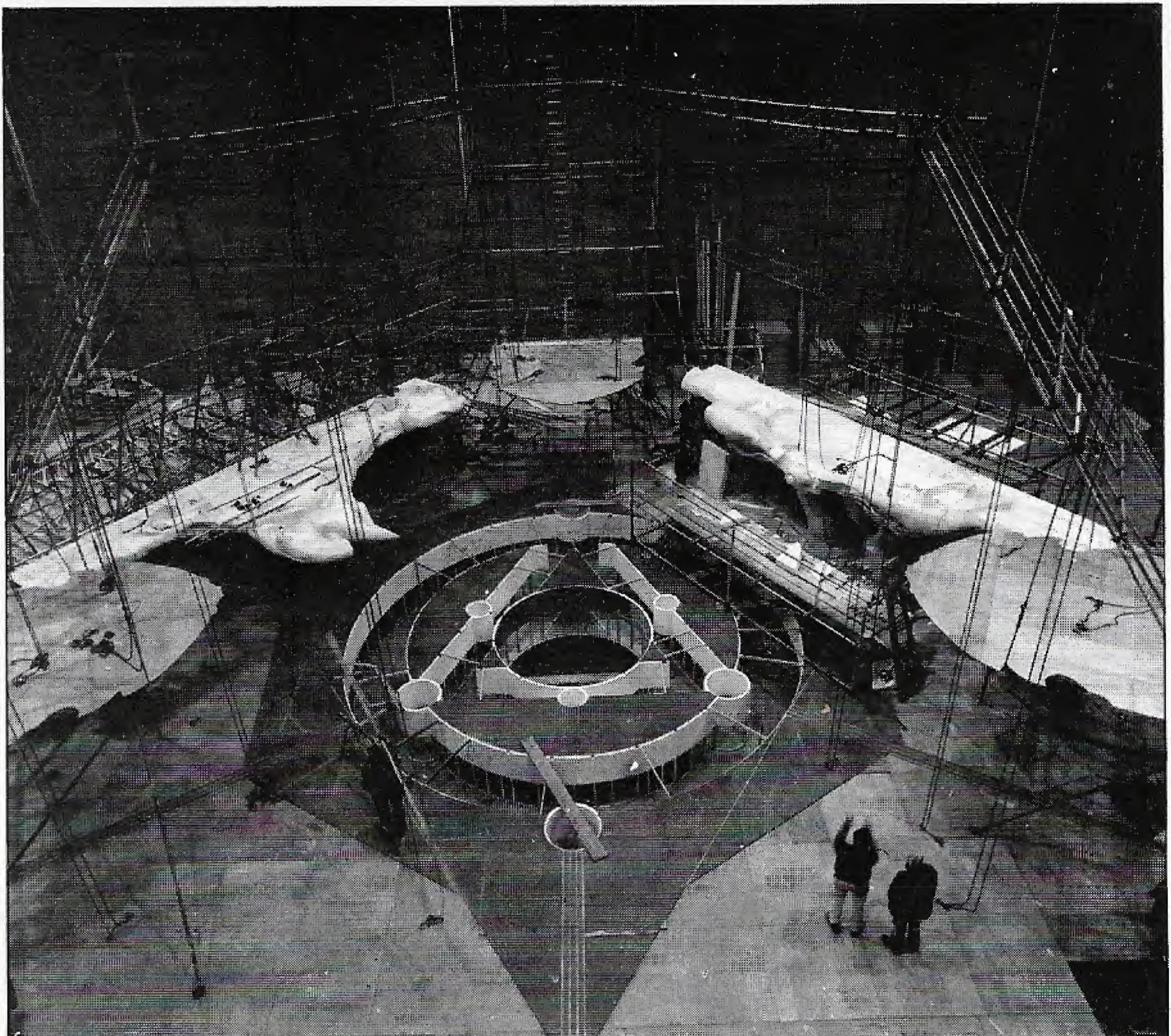
For the most part, the landscape of *The Dark Crystal* was evoked on sound stages – with full size sets such as Mystic Valley – or with the use of model shots and sophisticated matte techniques. A few exteriors were filmed, however, and one large outdoor set – representing the entrance to the Skeksis castle – was built on the back lot. Since an actual rock formation in Yorkshire would be used for location work, models of that cliff were made and carefully numbered (above right) so that the full-scale facsimile could be built in sections. Assembled on a large scaffold, this set served as the site for the battle between the Garthim and the Landstriders, and also for the entry of the Mystics into the castle.



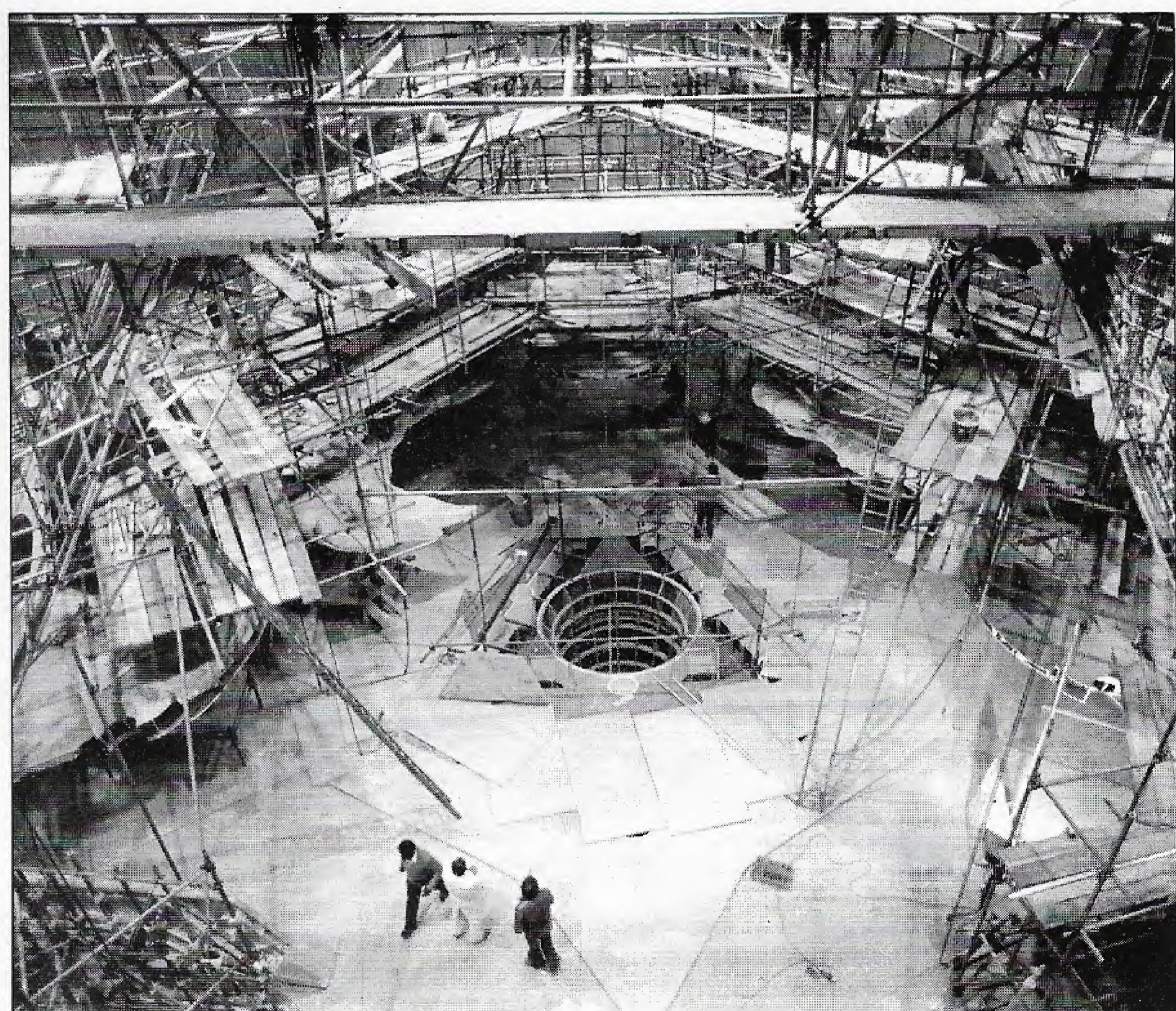




Brian Froud's drawing for the floor of the Council Chamber, an elaborate blend of astrological and alchemical symbols.



Model of the Council Chamber.



One basic set, dressed in different ways, served as Council Chamber and Crystal Chamber. These views of the set under construction give some idea of its immense size.



*The nine remaining Skeksis gather in the Council Chamber for the funeral of the Emperor.*



*At the moment of the Great Conjunction, the Mystics invade the Crystal Chamber, ready to be reunited with the Skeksis and give rebirth to the urSkeks.*

## NINE

In the rough assemblages that Ralph Kemplin updated every few days, the world of *The Dark Crystal* was finding its final shape – a world that now existed independently of the workshop and the sound stages. Gelflings rode Landstriders through forests of unearthly, shimmering vegetation; Garthim skulked in subterranean lairs, their eyes glowing sinister in the blackness; Skeksis schemed against Skeksis, each face alive with evil cunning. In a darkened screening room it was easy to forget that Jen, Kira, Aughra, the Garthim-Master, and the rest were, in fact, super-sophisticated puppets.

Back on the sound stage, however, it was only too apparent that they were puppets, and cumbersome ones at that. Given the slow progress from day to day, it was difficult to keep from wondering how it was possible to wrest a convincing performance from characters like the Chamberlain and the Ritual-Master. With cable-crew members crouched around the hem of their robes, a pair of Skeksis would burst into life for a few brief seconds, and then, with the cry "Cut!" they would sink back into their inanimate state. There seemed to be little continuity that would help anyone sustain a performance, and the physical discomfort attending every scene would be, for most people, a constant distraction.

"Some days I would work inside the Ritual-Master," Jim Henson remarks, "and not even notice the weight. If I was feeling the slightest bit run down, though, I would be more than ready to get out at every opportunity."

"The point is," says Frank Oz, "that a good performer – Jim or Dave Goelz, for example – forgets the pain when 'Action' is called. He becomes the Ritual-Master or the Garthim-Master or whoever he's supposed to be."

"I didn't find it difficult to get a performance out of the Garthim-Master," Dave Goelz insists. "Each Skeksis had a clearly defined character, a certain gait, a particular set of facial tics. There was a lot to work with."

"Before you ever work with the character," says Oz, "you develop a sense of how he behaves, how he moves. When it comes to performing in front of the cameras, you have to produce energy in short bursts, but otherwise it's like any other kind of acting – you work with the beats. You get the main beat down and then you refine the others, making them more subtle."

Goelz echoes the importance of working with the beats and adds that a big help to sustaining the continuity of a scene was shooting in sequence whenever it was practical.

Coordination with the cable crew was another crucial aspect of the performance, and such coordination only improved as the production went along.

"Familiarity with your crew is vital," says Goelz. "At first we had to give rather precise instructions – 'Pop his eyeballs on the count of three' – but then it became much easier. Most of the time I would just tell my crew what emotion I wanted the Garthim-Master to register."

"When I was inside Aughra or the Chamberlain," says Oz, "I would try to keep my eyes glued on my monitor and call out instructions to my cable crew. But they worked as a team and generally knew exactly what to do after two or three rehearsals. The main thing is that the performer has to transcend the technical aspects of the performance. That's what Dave Goelz can do. It's his acting talent that makes the Garthim-Master such a wonderful, militaristic bastard."

If Goelz had any problem with the Garthim-Master, it was that he sometimes felt the temptation to play him for laughs. "It would have been so easy to do broad stuff with any of the Skeksis. For me they are inherently comical, and I think it's important not to lose sight of that. But the humor must remain implicit. It was my job to keep it just below the surface."

Frank Oz mentions above that he had to keep his eyes riveted on the television monitor; it is not exaggeration to say that no performance of this sort would be possible without it. During a quarter century of television puppetry, Jim Henson has introduced many innovations, but none is more significant than the use he has made of the monitor. Exactly what the camera sees is simultaneously available to the performer as a TV image. Each of his puppeteers works while watching a monitor, thus becoming, in effect, his own audience and critic. Every nuance of a performance – and every mistake – can be examined as it is actually happening. The benefits of this system are enormous.

It is because of this that the cameras used to film *The Dark Crystal* were specially equipped to shoot video simultaneously. (A prism behind the lens "taps" the image and transmits it to a pickup tube.) Oz, inside the Chamberlain, was able to see just what the camera saw on the tiny screen of a miniaturized monitor installed within the Chamberlain's chest cavity. Without it, Oz – and all the other performers – would have been lost.



Between takes, Frank Oz removed part of his costume to reveal the harness he wore while performing the Chamberlain. A flexible rod, cantilevered off Oz's shoulder, supported his arm inside the character's neck and allowed him the wrist and hand strength he needed to operate the head.

A cable crew at work. Each member of the crew has his or her eyes fixed on a television monitor.

*A documentary cameraman films video engineer Ian Kelly as he works at one of the portable video consoles that was located on or near every set.*



## TEN

Kathryn Mullen had been preparing for her role longer than anyone else, but she was still unhappy with the cable-control system that had been devised for Kira. As a result, just a few weeks before principal photography was to begin, Mullen requested a radical design change. "Faz" Fazakas, the Muppets' technical wizard, had told her there was no reason why the functions of Jen and Kira that were now controlled by cable could not be controlled instead by radio signals. Henson and Oz asked Fazakas to build prototypes and bring them to London for tests.

Mullen's request for remote control functions was not totally without precedent, since the Muppets had often used radio control in limited ways. If there were any doubts about applying remote control to Jen and Kira, it was because these puppets were so naturalistic that they might present special problems. Fazakas, however, was sure Jen and Kira would benefit tremendously from remote control.

"Actually, it applies well to characters of that sort," he explains. "The cable-control system is inefficient. Because it's an engineering system with no fulcrum, it involves a lot of work in order to create very little effect. People tend to be too strong and to use too much force for the effects they're after. Radio-controlled servomechanisms, on the other hand, can be very expressive and subtle."

He quickly built radio controls into a pair of substitute heads and brought them to London.

"These were relatively crude," he says, "with only partial movement, but Jim and Frank were delighted.

They asked me to build two robot heads with full controls for the ears, eyelids, everything. We did the work in three and a half weeks, and it turned out very well – perhaps because we had to keep things simple.

"Having the remote-control Kira made my performance," Kathryn Mullen says emphatically. "I did a couple of scenes with the cable-controlled version, and the difference was like night and day. Remote control gave me the freedom of movement I needed."

Ultimately, of course, it was Mullen's acting ability that made the performance.

"Like Jim," says Frank Oz, "I was convinced very early on that, given the right experience, Kathryn could handle the part, and she's done a fantastic job. She has just the right temperament for the role, and the fact that her background is in acting rather than in puppetry was probably an advantage, since Kira is so naturalistic you have to think of her as a tiny human."

What radio control did for Jen and Kira was to allow the performers to concentrate on acting, free of technical encumbrance. While Skeksis were followed about by a swarm of assistant operators, Mullen and Henson were unhampered on set. As Henson put Jen through his paces, Wendy Midener would sit a few yards away, a control box – not much larger than a shoe box – in front of her. While Henson controlled the basic head and body movements, giving the performance its breadth – Midener, with a little gentle pressure on this lever or that, added the inflections that brought the hero of *The Dark Crystal* fully to life.





Although Kathryn Mullen's performance and her traditional puppetry skills were primarily responsible for bringing Kira to life, the radio-controlled version of Kira was capable of a considerable range of expressions. A latex mask concealed incredibly sophisticated electronic and mechanical equipment, and the remote control proved capable of considerable subtlety in handling secondary functions like eye and eyelid movements.



## ELEVEN

The post-production period is important to any movie. It is then that the film is edited down to its final length, voice tracks looped in, and music added. But in the case of *The Dark Crystal*, the post-production period was especially crucial. This was so for several reasons, the most important of which was the fact that totally new performers who would be unfamiliar with the project had to be found to provide the voice tracks. In a sense it was almost like starting the picture all over again.

While shooting was still in progress, Duncan Kenworthy, one of Henson's associates, began to audition voices for possible use in the film. It had been decided in advance what kind of voice would be appropriate to a particular character or group of characters – deep and warm for the Mystics, brittle and abrasive for the Skeksis – and the dubbing supervisor contacted actors he knew to have the right general qualifications.

The initial auditions were relatively informal. Each actor was shown a photograph of the character he or she was being asked to play, handed a page or two of dialogue, and asked to experiment with how that character might speak. They were encouraged to form "pictures of voices," to think about the physical peculiarities of the character. A Skeksis, for example, has a mouth that can be thought of as either lizardlike or parrotlike.

These first auditions were recorded wild; and after Jim Henson, Frank Oz, and Gary Kurtz had listened to them, a short list was made from which selected performers were invited back to make a second test, this time working in sync with a scene from the film.

Almost at once, difficulties arose. It was found, for example, that the Chamberlain, as performed by Frank Oz, spoke so quickly that it was a considerable problem for an actor to stay in sync while remaining in character. It became very important to select actors whose *natural* voices were close to what was needed. To be avoided at all costs were "forced" voices or voices that sounded too cartoonlike. What was required were actors who were capable of "breathing life" into the puppets that would appear on screen.

Some choices were relatively easy to make. Fizzgig, for instance, was awarded to veteran radio performer Percy Edwards, who has specialized for decades in animal impersonations. Kira, too, proved to be relatively simple to cast. Kathryn Mullen's own voice was finally ruled out because it didn't quite sound young enough, but it soon became evident that there would be little problem in finding a voice to match the character.

Typical, perhaps, was the situation with Aughra. Here three possible candidates quickly emerged, and this selection was narrowed down to two and then one, the final choice being made partly because the actress selected had more dubbing experience. When she came to work on the actual looping, however, it was found that she was having to "reach" too far to stay in

character and it was decided to replace her with the actress who had been her closest rival.

One of the most difficult voices to cast was Jen's. It was agreed that this voice must be light, youthful, and innocent; but to define it beyond that was impossible. There was, to begin with, no consensus as to his exact age. The only solution was to test dozens of actors, ranging from boys in early adolescence to young men in their twenties. Eventually one of the older candidates was judged to have the appropriate voice.

Although each voice had been matched as carefully as possible to the character, it was decided that a device known as a harmonizer would be used to electronically change the voices and make them seem stranger and more otherworldly. Among its various unusual functions, this device can make a voice higher or lower without altering its speed of delivery, as well as flip-flop fragments of dialogue so that they run backward.

If appropriate voices are crucial to a movie like *The Dark Crystal*, so is the musical score. In this instance music is used not merely to underline mood but, since much of the dialogue and action is so cryptic, it must be relied on at times to create and sustain dramatic tension. It must be, in a real sense, operatic.



As already noted, Trevor Jones was chosen to score the film because he was prepared – even anxious – to work in an experimental way, staying in close touch with the filmmakers and trying different approaches to match their unusual needs.

Generally speaking, a score cannot be written until a movie has been edited into its final form (since it must match the visual images precisely). In this case, however, certain scenes had to be scored in advance for very practical reasons. The Pod People's feast, for example, fell into this category because it would be necessary for Brian Froud to hear the music before he could design the instruments that the Pod musicians would play.

For the most part, though, Jones received videotapes of each scene, in a rough cut form, so that he could watch them while he sat at the piano or – more typically – worked with a synthesizer, trying out themes that might later form the basis of the score. The main debate, from the outset, was whether the music should be relatively conventional, so as to make the movie more accessible to audiences, or strange and outlandish, so as to heighten the action on screen. At first it was agreed that the former approach was correct. However, midway through principal

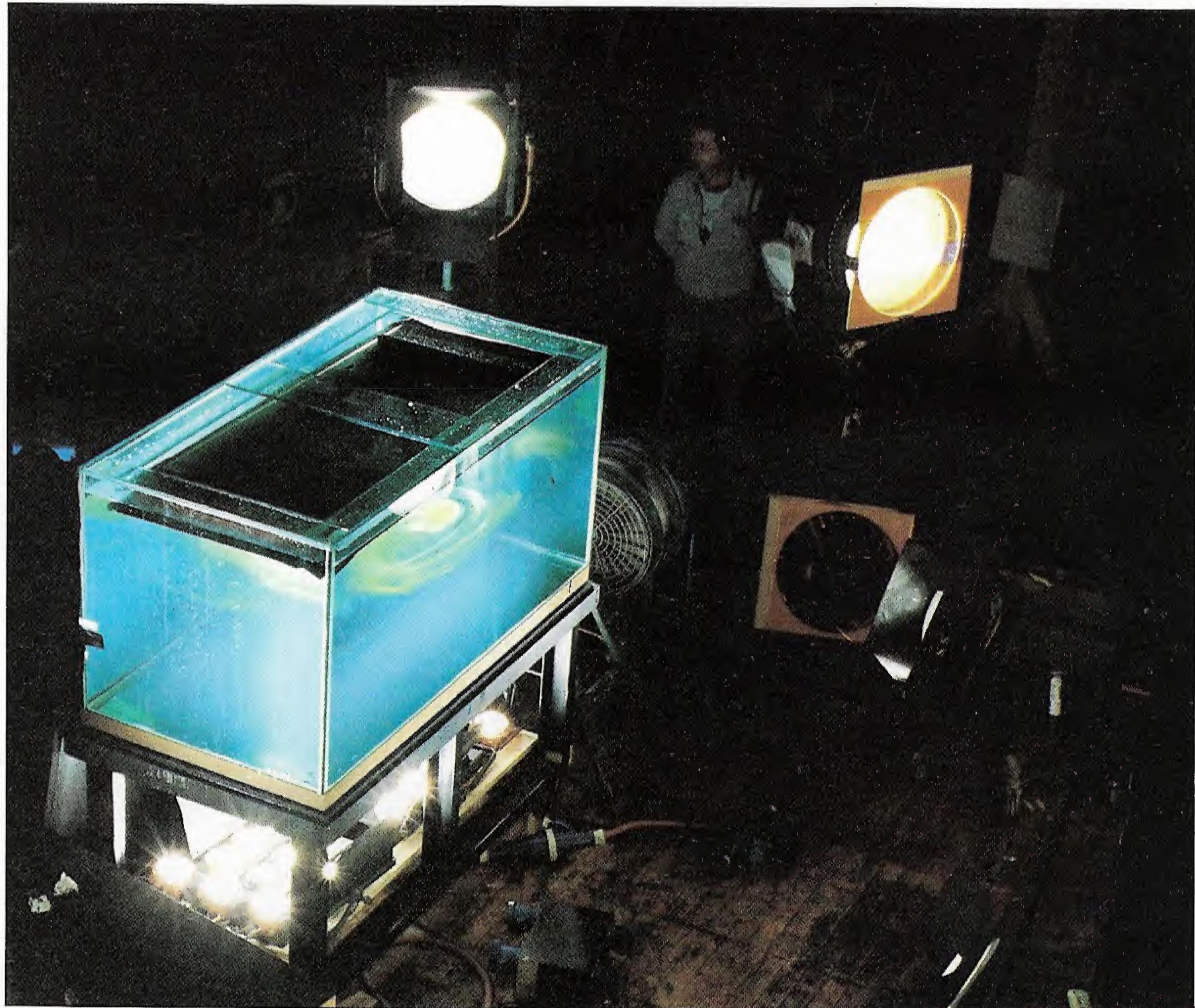
photography, as the completed scenes began to accumulate, it was decided to reverse this decision and to use the music to intensify the strangeness.

The completed score was recorded by the London Symphony Orchestra supplemented by synthesizer and a variety of unconventional instruments. (Jen's twin flute, for instance, is represented on the sound track by an eighteenth-century double-flageolet that Trevor Jones came across in a Hampstead music store. The difficulty here was to find a musician who could play it imperfectly enough to match the limited skill that must be presumed for Jen.) In Jim Henson's opinion, the results were perhaps the most ambitious fusion of electronic and orchestral music ever recorded for a movie sound track.



At London's Abbey Road Recording Studios, Marcus Dodds conducts the London Symphony Orchestra as they perform part of Trevor Jones's score for *The Dark Crystal*. As he works, the conductor watches the screen where the movie is being projected and also the digital clock beneath the screen. In this way he is able to synchronize the music with the action in the movie.

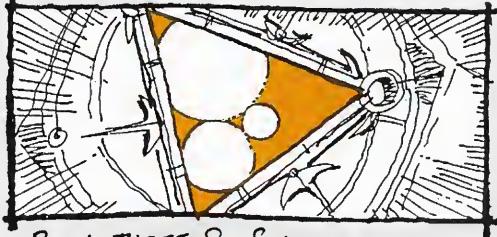
While much of this was going on, special-effects people and the model unit remained busy, even though principal photography had ended. One major special-effects task was to devise spectacular and unusual skies for the storm sequence at the beginning of the movie. This was achieved by suspending colored liquids in water in a glass tank, the pigments creating ever-changing cloud formations, chemical compounds sometimes reacting violently to one another. Since it was important to give the illusion of perspective in these skies, the effects people had to experiment endlessly to produce a sense of depth while retaining a spatial continuity between background and foreground.



*Elaborate cloud effects were produced by suspending colored liquids in a large, carefully lighted fish tank.*

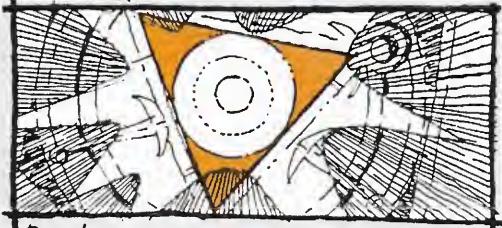


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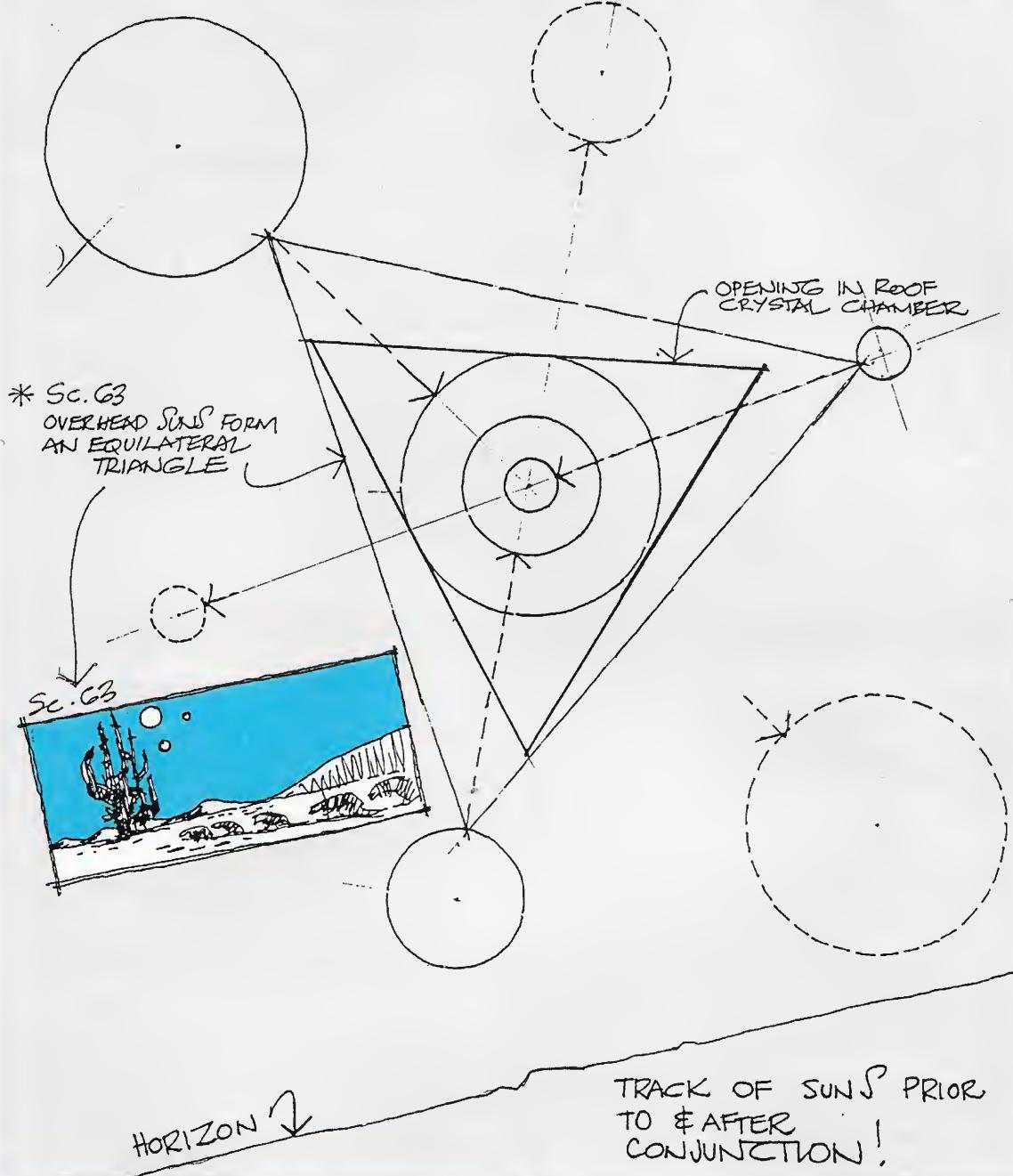


P.O.V. THREE SUNS TOUCH

Sc. 71 PT.



P.O.V. THE CONJUNCTION



The Great Conjunction of the three suns was achieved as an optical effect. This diagram shows the paths followed by each of the suns as they converge above the Skeksis castle.

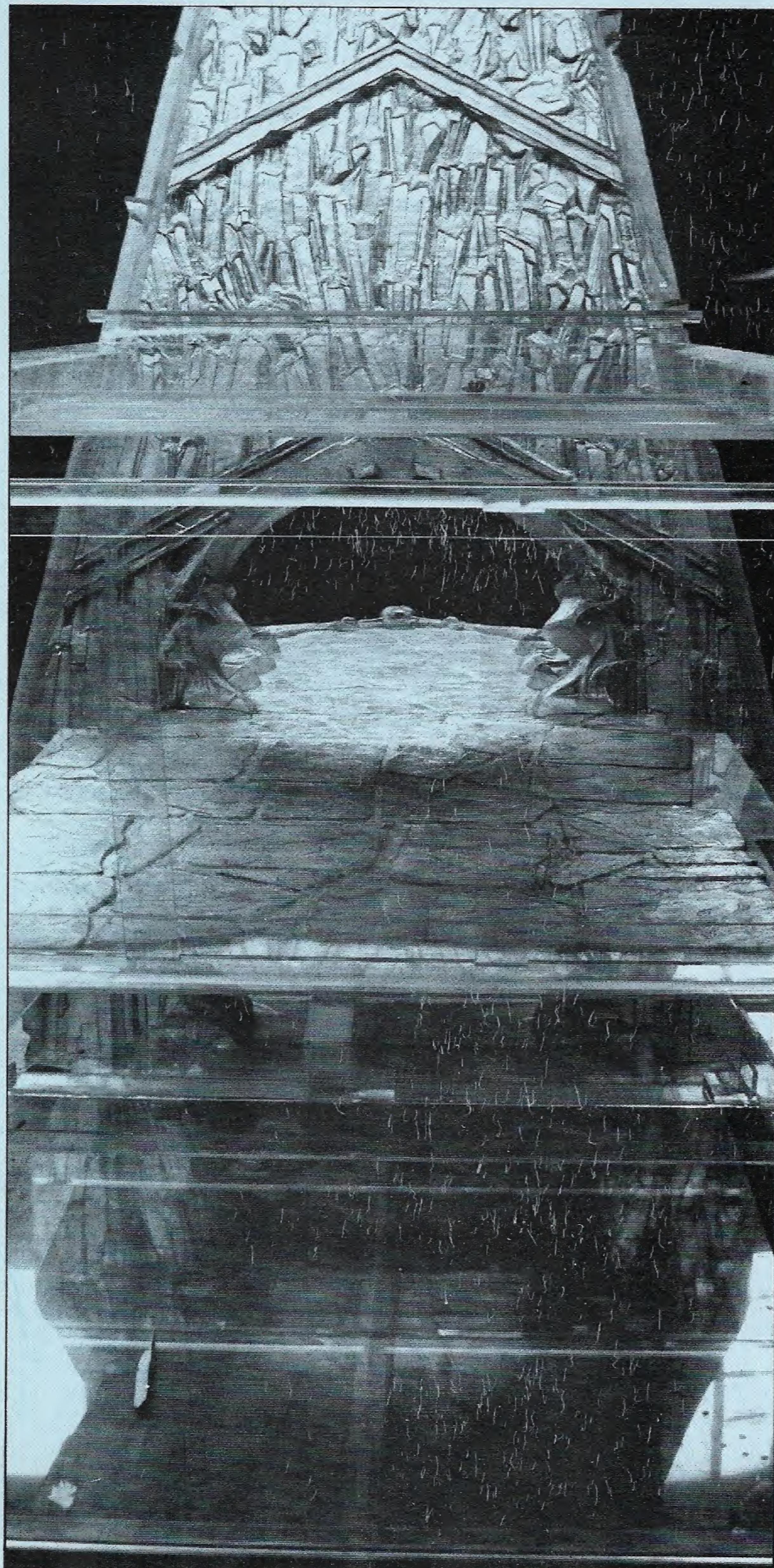


Harry Lange's rendition of the Skeksis castle.



Members of the miniature effects crew work on the landscape that surrounds a model of the Skeksis castle.

A miniature of part of the Crystal Chamber. Glass plates have been installed to protect the camera from flying debris when the miniature is deliberately destroyed.



The model unit's most demanding task was to complete the final transformation of the Crystal Chamber. At the climax of the film, the stone slabs fall away from the walls and ceiling of the chamber, revealing the luminous crystal structure beneath. The beginning of this process was shot on the full-size set, but 90 percent of the transformation was filmed from the floor of a large-scale model that stood approximately a dozen feet high.

What made this task especially difficult was that the artificial stone slabs had to peel away and fall according to a carefully prearranged pattern – all in a single sequence – so that three strategically placed cameras could record the collapse in one continuous take. When the model was rigged for shooting, everyone who could get away from his or her assigned work gathered on the set to watch what promised to be one of the production's most exciting happenings. An effects person set off the first of a series of tiny explosions, which triggered the collapse of the stone slabs. For perhaps thirty seconds, everything went according to plan – slabs tumbling down to reveal the crystal substructure – then the trigger system suddenly malfunctioned and everything came to a halt.

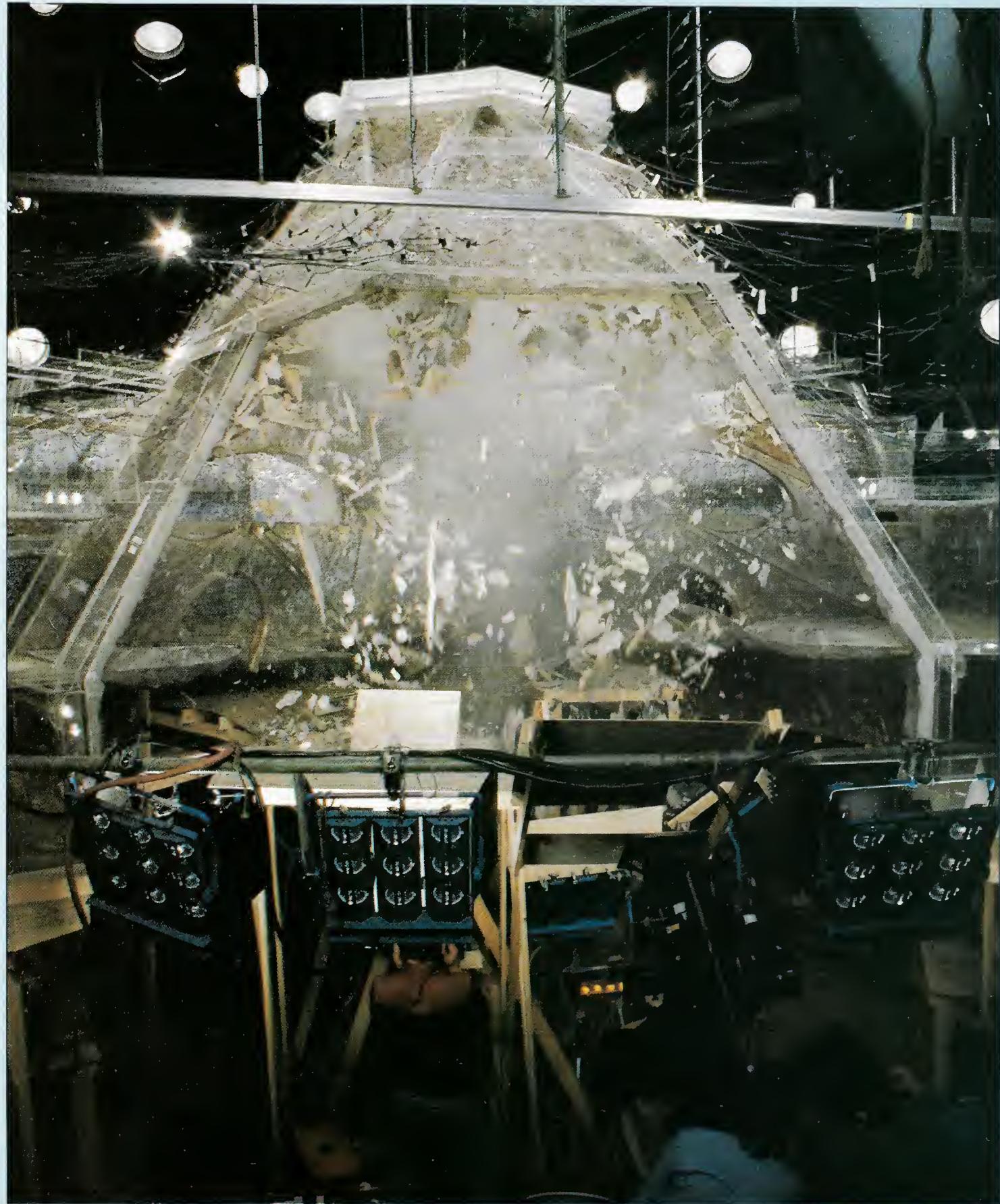
There was nothing to do but start all over again. It took five days just to reconstruct the model, but in the second attempt all things went perfectly. When everything was completed, *The Dark Crystal* was given a preview in Washington, D.C. Such previews are designed to afford producers the opportunity of testing their picture out on an audience of ordinary filmgoers who then answer questionnaires on how they think the movie could be improved. As a result of this survey, two major criticisms of *The Dark Crystal* emerged: the sample audience found Aughra's voice difficult to hear, and many people were disturbed by the fact that the Skeksis spoke in an unintelligible language for the most part.

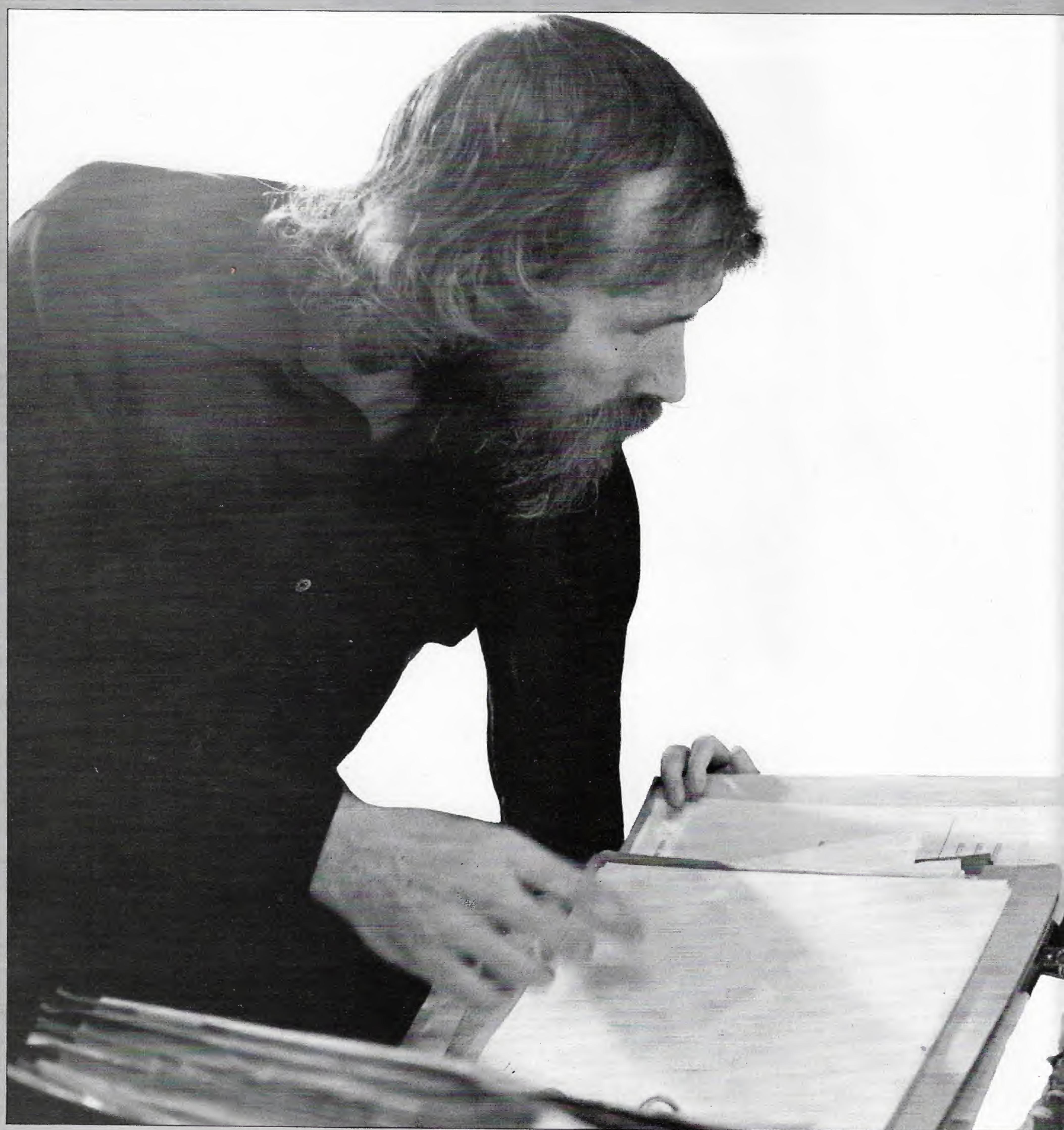
There was no choice but to go back and redub whole sections of the movie.

In the case of Aughra, it was simply a matter of recasting once again, but the situation with the Skeksis was far more complicated. A videotape of the film was sent to David Odell, who was asked to compose English dialogue that would match the lip movement of the various characters.

Another series of dubbing sessions was held, another mix was made, and finally *The Dark Crystal* was complete.

*The final transformation of the Crystal Chamber was filmed from the floor of a delicately rigged model. Detonators were set to trigger the fall of stone slabs according to a carefully predetermined pattern.*





## Production Staff

Produced by ..... Jim Henson and Gary Kurtz  
Directed by ..... Jim Henson and Frank Oz  
Screenplay by ..... David Odell  
Story by ..... Jim Henson  
Executive Producer ..... David Lazer  
Conceptual Designer ..... Brian Froud  
Production Designer ..... Harry Lange  
Director of Photography .. Oswald Morris, B.S.C.  
Film Editor ..... Ralph Kemplen  
Music ..... Trevor Jones  
Associate Producer ..... Bruce Sharman  
Special Visual Effects ..... Roy Field, B.S.C., and  
Brian Smithies



Supervising Art Director .....	Charles Bishop
Art Directors .....	Terry Ackland-Snow, Malcolm Stone, Brian Ackland-Snow
Set Decorator .....	Peter Young
Construction Manager .....	Alan Booth
Assistant Art Directors .....	Richard Dawking, Fred Evans, Katharina Kubrick
Sketch Artists .....	Mike Ploog, Bill Stallion, Denis Rich, Roy Carnon
Draftsmen .....	Reg Bream, Roger Bowles, Richard Holland, Don Dossett, Michael Boone, James Morahan
Chargehand Modeller .....	Allan Moss
Modellers .....	Bernard Kramer, Keith Short, Brian Archer, Andrew Holder, Brian van Muir, Peter J. Voysey
Chief Buyer .....	Roddy Rodrigo
Operating Cameraman .....	Derek Browne
Senior Camera Assistant .....	Maurice Arnold
Camera Assistant .....	Tim Dodd
Camera Grips .....	Brian Osborn, Dennis Lewis
Gaffer .....	John Harman
Rigging Gaffer .....	Derek Sheriff
Supervising Video Engineer .....	Ian Kelly
Property Master .....	George Ball
Property Supervisors .....	Eddie Francis, Ray Perry, Denis Hopperton
Head Carpenter .....	Fred Britten
Head Plasterer .....	Sid Whitlock
Head Rigger .....	William Lowen
Head Painter .....	Dixie Dean
Head Stagehand .....	Harry Ecksford
Drapes Master .....	Barry Wilson
Associate Producer for Henson .....	Duncan Kenworthy
Production Manager .....	Philip Kohler
Choreography & Mime Training .....	Jean-Pierre Amiel
Assistants to Directors .....	Patsy de Lord, Jill Colley
Assistant to Producer .....	Bunny Alsup
Assistant to Executive Producer .....	Martin Baker
First Assistant Director .....	Dusty Symonds
Second Assistant Director .....	Chris Newman
Third Assistant Directors .....	Keith Young, Nick Laws
Continuity .....	Chery Leigh
Production Coordinator .....	Bi Benton
Production Assistant .....	Mary Richards
Production Aids .....	Grant Kingham, Moyra Simpson
Production Accountant .....	Sidney G. Barnsby
Set Controller .....	Ken Gordon
Assistant Accountant .....	Jill Bennett
Unit Publicist .....	Ann Tasker
Assistant Publicists .....	Jennifer Collen-Smith, Kirster Wing
Still Photographer .....	Murray Close
Promotion & Publicity Coordinator .....	Roberta Jimenez
Sound Editor .....	Nicholas Stevenson
Music Editors .....	Michael Clifford, Dina Eaton
Assembly Film Editor .....	Marcel Durham
Dialogue Editor .....	Brian Mann
Optical Editorial Coordinator .....	William Webb
Dialogue Supervisor .....	Louis Elman
Assistant Sound Editors .....	John Muth, Derek Trigg
Foley Editor .....	Campbell Askew
Foley Assistant .....	Robert Gavin
Re-Recording .....	Bill Rowe
Production Sound .....	Peter Sutton, Don Wortham, Bob Taylor
Music Recording .....	John Richards, Eric Tomlinson
Music Coordinator .....	Graham Walker
Orchestrations .....	Peter Knight, John Coleman
Conductor .....	Marcus Dodds
Special Sound Effects .....	Ben Burt
Music Performed by .....	The London Symphony Orchestra
Soloists .....	Chris Taylor, Skala Kanea, Richard Harvey
Synthesised Electronic Sounds .....	David Lawson, Brian Gasgoigne, David Firman, Trevor Jones

## Creature Development

Creature and Costume Design Brian Froud  
Creative Supervisor ..... Sherry Amott  
Creature Design and Fabrication  
Gelfling ..... Wendy Midener  
Skeksis ..... Lyle Conway, Sarah Bradpiece  
Mystics ..... Sherry Amott, Tim Clarke  
Garthim ..... Fred Nihda  
Aughra and Urskeks ..... Lyle Conway  
Landstriders ..... Valerie Charlton  
Pod People and Slaves ..... Sherry Amott  
Environmental Creatures ..... Tim Miller, John Coppinger  
Fizzgig ..... Rollin Krewson

## Associate Costume Designers

Skeksis ..... Sarah Bradpiece, Steven Gregory  
Mystics ..... Shirley Denny, Diana Mosley  
Gelfling and Pod People ..... Polly Smith, Barbara Davis, Ellis Duncan  
Costumers ..... Val Jones, Lesia Liber  
Wardrobe Supervisor ..... Betty Adamson  
Wigs and Hair ..... Stuart Artingstall  
Special Mechanical Design ..... Leigh Donaldson, Tad Krzanowski  
John Stephenson, Bob Baldwin  
Foam Latex Supervisor ..... Tom McLaughlin  
Associates ..... Sue Higgins, Joan Garnick  
Radio Control Design ..... Faz Fazakas

## Creature Fabrication

### Gelfling Unit

Leigh Donaldson  
Mike Osborn  
David Blazer

### Skeksis Unit

Michael McCormick  
Brian Baker  
Chris Ostwald  
Tim Wheeler  
John Thirtle  
Peter Owen  
Vin Burnham  
Cas Willing  
Michael Jeffries  
Sarah-Jane McClelland  
Cindy Bishop  
Henrietta Worrall-Thompson  
Sarah Gunn  
Nick Lyons

### Mystic Unit

Stuart Robinson  
Jeremy Harris  
Harry Franchetti  
Jerry Andrews  
George Chamberlain  
Chris Dartnell  
June Kirby  
Diane Murphy  
Eileen Sullivan  
Ann Lodge  
Heather Menczer  
Joanna Allman  
Linda Cooper  
Elvira Angelinetta

### Garthim Unit

Peter Bennion  
Bill Dennis  
Peter Gillow  
Bob Keen  
Guy Grebot  
Dominic Farrugia  
Ron Nash  
Helen Pettit

**Pod People Unit**

Bob Payne  
Amy van Gilder  
Michael Quinn  
Cheryl Henson  
Marianne Harmes  
Nick Forde  
Sarah Monzani  
Peter Saunders  
Debbie Coda

### Aughra and Urskeks Unit

David Barclay  
Graeme Gairn  
Jeremy Hunt  
Steve Court  
Paul Jiggins

**Landstrider Unit**

Stephen T. Miles  
James Acheson  
Lyn Kramer  
Nigel Trevessey  
Roger Shaw  
John Markwell  
Barry Fowler  
Charlie Green  
Mike Flynn  
Geoff Wiles  
Dennis Murray  
Ray Tricker



The cast and crew of The Dark Crystal.

## The Character Performers

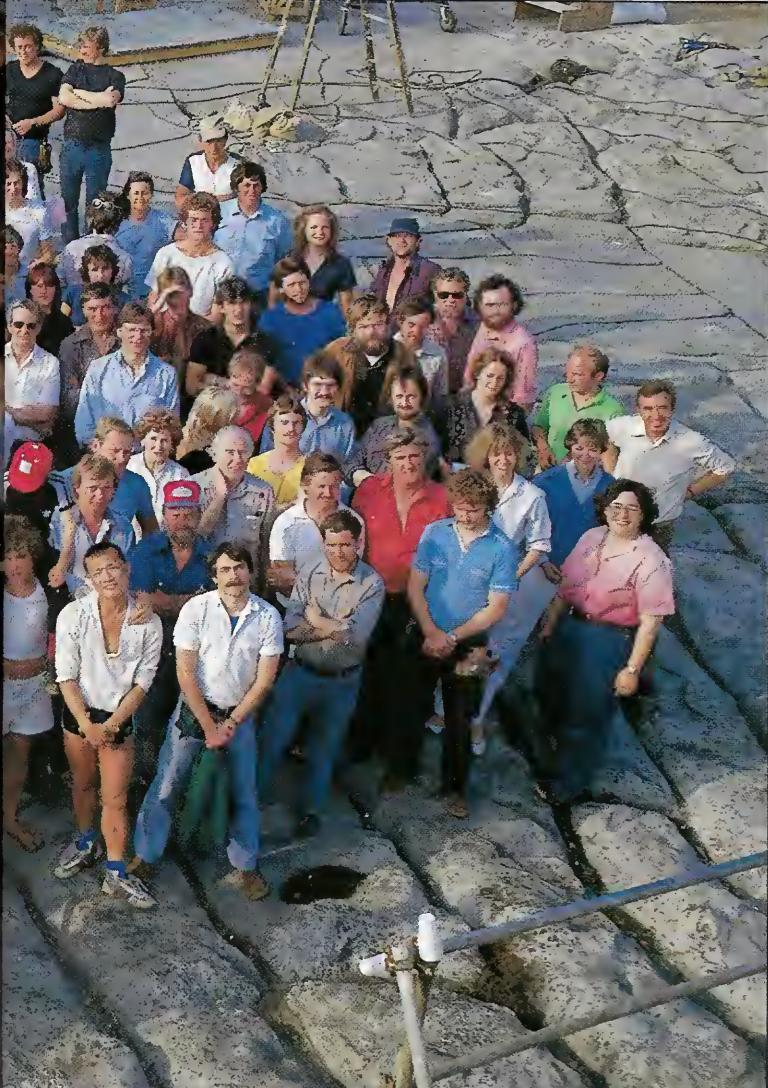
Jen.....	Jim Henson
Kira .....	Kathryn Mullen
Aughra.....	Frank Oz
Fizzgig.....	Dave Goelz

## The Skeksis

Chamberlain .....	Frank Oz
General (Garthim-Master)	Dave Goelz
High Priest (Ritual-Master)	Jim Henson
Scientist .....	Steve Whitmire
Gourmand .....	Louise Gold
Ornamentalist .....	Brian Muehl
Historian (Scrollkeeper) .....	Bob Payne
Slave Master .....	Mike Quinn
Treasurer .....	Tim Rose

## The Mystics

Urzah and Dying Master .....	Brian Muehl
Weaver .....	Jean-Pierre Amiel
Cook .....	Hugh Spight
Numerologist .....	Robbie Barnett
Hunter .....	Swee Lim
Chanter .....	Simon Williamson
Scribe .....	Hus Levant
Alchemist .....	Toby Philpott
Healer .....	Dave Greenaway and Richard Slaughter
Landstriders .....	Hugh Spight, Swee Lim, Robbie Barnett
Additional Performers .....	Kiran Shah, Mike Edmonds, Malcolm Dixon, Sadie Corre, Deep Roy, Gerald Stadden, Mike Cottrell, Abbie Jones, Natasha Knight, Lisa Esson, Peter Burroughs, Jack Purvis, John Ghavan
Stunts .....	Kiran Shah



## The Character Voices

Jen .....	Stephen Garlick
Kira .....	Lisa Maxwell
Aughra .....	Billie Whitelaw
Fizzgig .....	Percy Edwards

## The Skeksis

Chamberlain .....	Barry Dennen
General .....	Michael Kilgarriff
High Priest and Dying Emperor .....	Jerry Nelson
Scientist .....	Steve Whitmire
Gourmand .....	Thick Wilson
Ornamentalist .....	Brian Muehl
Historian .....	John Baddeley
Slave Master .....	David Buck
Treasurer .....	Charles Collingwood

## The Mystics

Dying Master .....	Brian Muehl
Urzah .....	Sean Barrett
Pod People .....	Miki Iveria, Patrick Monckton, Sue Westerby, Barry Dennen
urSkeks and Narrator .....	Joseph O'Connor

## Second Unit

Director .....	Gary Kurtz
Assistant Director .....	Vincent Winter
Continuity .....	Pamela Mann
Operating Cameraman .....	Neil Binney
Camera Assistant .....	Tony Woodcock, Michael Lloyd
Location Manager .....	Redmond Morris

## Minature Effects Unit

Director .....	Brian Smithies
Assistant Director .....	Gareth Tandy
Director of Photography .....	Paul Wilson
Camera Operator .....	John Morgan
Camera Assistants .....	Jonathan Taylor, Johanna Abey
Camera Grip .....	R. H. Hall
Gaffer .....	Billy Pochetty
Head Carpenter .....	Gordon Routledge

## Production Effects Unit

Mechanical Effects Supervision .....	Ian Wingrove
Effects Engineer .....	Tony Dunsterville
Wire Effects .....	Bob Harman
Effects Technicians .....	Joseph Fitt, David Harris, Terry Schubert, Ian Scoones

## Optical Effects Unit

Optical Printing Supervision .....	Richard Dimbleby
Matte Paintings .....	Mike Pangrazio, Chris Evans
Matte Camera Operator .....	Martin Body
Assistant Optical Effects .....	Andy Jeffery
Scenic Matte Photography .....	Neil Krepela
Matte Photography Assistant .....	Craig Barrow
Additional Matte Artist .....	Charles Stoneham
Titles by .....	Graphmation

Scenic Matte Paintings Produced at Industrial Light and Magic, San Rafael, California; Special Thanks to Dennis Lee and Alan Garner;

Filmed In Panavision® Recorded In Dolby Stereo Color By Technicolor®

Photographed Using The Lightflex System

Music Recorded at CTS Recording Studios, London and at Anvil Abbey Road Studios, London

Soundtrack on Warner Bros. Records 3SP Novel from Owl Books, Holt, Rinehart and Winston.

Made at EMI Elstree Studios, Hertfordshire, England

A Henson Organization Ltd. Production for ITC Entertainment Ltd. MPAA Rating: PG

Distributed by Universal Pictures and Associated Film Distribution Corporation

## TWELVE

*The Dark Crystal* is a unique motion picture. In this production, the cinematic imagination of Jim Henson, the personal vision of Brian Froud, and the superlative performing skills of Frank Oz and the other Henson puppeteers are blended with the talents of hundreds of other artists and craftspeople to create a world that is original, bizarre, and yet that has obvious parallels with our own. We encounter familiar emotions – such as love and the lust for power – but they are embodied in beings as strange as any we might encounter in our most outrageous dreams. We are confronted with a new mythology, one that, possibly because it evolved with much give and take in exchanges between a large number of individuals, has a ring of authenticity not often found in myths.

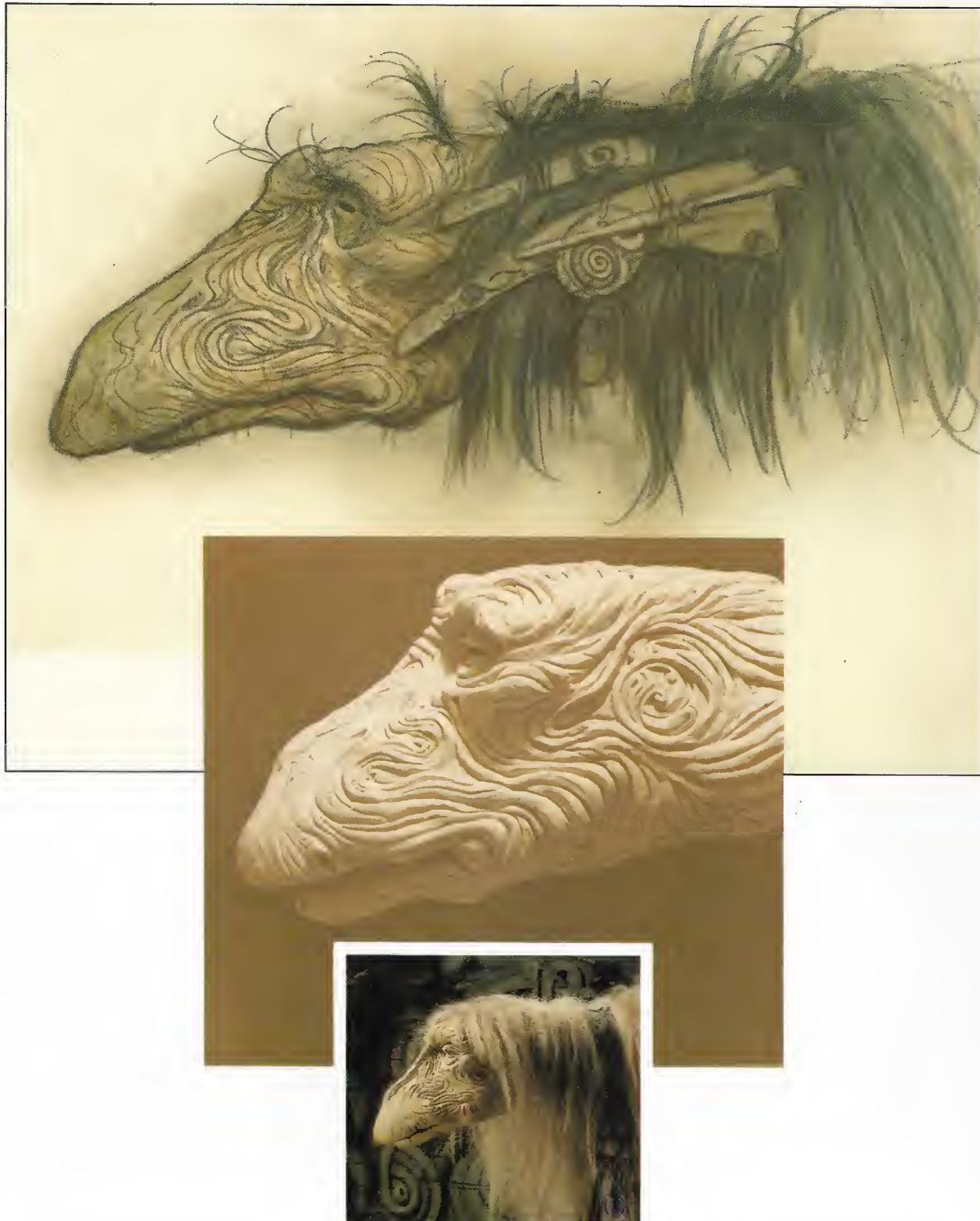
It is also a film that carries the art of puppetry to a point of technical sophistication that would have been unthinkable just a few years ago; yet for all that sophistication it places its trust in the same basic skills, the same powers of suggestion, the same essential magic that puppeteers have relied on for thousands of years.



"It has been a strange process," says Brian Froud. "At times I despaired of things coming out as I wanted them to. There were so many differences of opinion and so many compromises had to be made to accommodate the characters to the physical limitations of the human body. But everything did turn out all right in the end. Somehow the exchange between artist and builder and performer took us through a full circle and brought us back to what we had been trying to do in the first place."



Price £5.95



This spectacularly illustrated book reveals the amazing world behind the scenes of *The Dark Crystal*.

Created by Muppet master Jim Henson, the movie took more than five years to complete.

The result is an astonishing visual experience – a wonderland of technical wizardry and performing artistry that marks a historic advance in both the art of puppetry and the use of film. Henson drew on many remarkable talents to help him, starting with conceptual designer Brian Froud

(author of *Faeries*), co-producer Gary Kurtz (producer of *Star Wars* and *The Empire Strikes Back*), long-time associate Frank Oz as co-director, and David Lazer as executive producer. David Odell wrote the screenplay.

Author Christopher Finch, on location in England, chronicled the evolution of the movie from conception to screen. A devoted cinéaste, Finch's other books include *Of Muppets and Men*, *The Art of Walt Disney*, *Gone Hollywood*, and *Rainbow*, a biography of Judy Garland.

With over 200 photographs, most in full color and never published before, *The Making of The Dark Crystal* tells the whole story, from original idea to extraordinary execution, of a film that is truly unique.

Cover illustration by Brian Froud

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